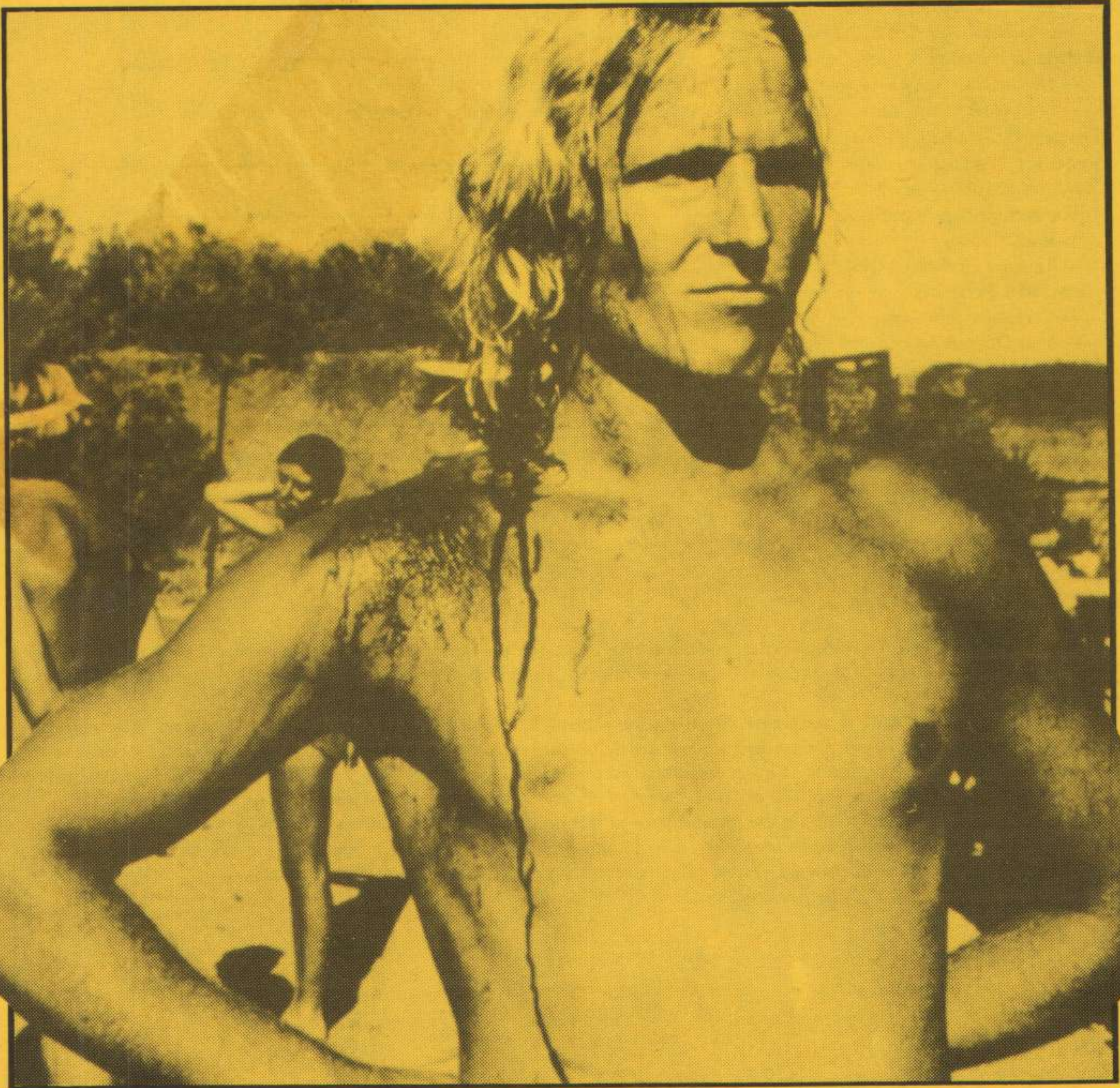
Winter/Spring 1989

SURFING MEDICINE

THE JOURNAL OF THE SURFER'S MEDICAL ASSOCIATION

Directory Issue



FEATURING

THE 1989 SMA DIRECTORY - WILDERNESS MEDICINE CONFERENCE

MARRIAGE AND SURFING - *MARIJUANA SMOKING IN SURFERS*

MALARIA AND SURFERS - AND MORE !!

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Cover Photo: Here's the quintessential surfer, bloody but unbowed. Which do you think he would choose: going to a doctor's office or taking care of it himself? This photo turned up the files, apparently from an old issue of SURFER. *We'll send an SMA T-shirt to the first person who can identify the issue and the photographer (so we can give him proper credit)!*

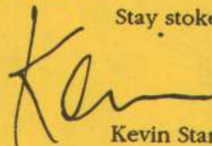
EDITOR'S NOTES

Well, here's the fourth issue of *Surfing Medicine*, the Journal of the Surfer's Medical Association. This issue is our biggest yet, even without the directory. With almost 400 members, the SMA (and with it, surf medicine) has really taken off. The Journal is hustling to keep up.

Have a look at this issue to see where surf medicine is headed. We've got more heavy case reports from SMA members, along with new stuff like Larry Decker's groundbreaking article on surfing and marriage. There is more original surf medicine research, including Geoff Booth's study of injured/disabled surfers and a report on cellular changes in the lungs of marijuana-smoking surfers. There are new projects, as well - from Third World health care training to medical staffing of exotic surf camps.

There's a lot going on - we're on the ground floor of this thing we call surf medicine. It can go wherever we (and that means you) take it. So, hey - get stoked and get involved! Sign up for an upcoming trip. Join forces in one of the SMA's ongoing projects. Organize a regional SMA meeting. Put together a research project. Write up something for the Journal. The swell is in, and the last thing you want to hear is, "Boy, you really missed it."

Stay stoked,



Kevin Starr, MD*, This issue's editor

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*We congratulate Kevin on graduating medical school, in early December! And with the completion and publication of the North Coast marijuana study, Kevin's fellowship with the Surfer's Medical Association is complete. Consider him really board-certified now. - MR

WILDERNESS SURF MEDICINE CONFERENCE

Big Flat, Northern California *October 20 - 23, 1988*

Looking up the Lost Coast Toward Big Flat

The Big Flat conference was the first -- of many, we hope -- regional SMA conferences, bringing together members from throughout Northern California. The following is from the original announcement of the Big Flat Conference:

Big Flat is one of California's true coastal wonders. Located along the "Lost Coast," the roadless stretch of coastline that stretches twenty-five or so miles from Shelter Cove in the south to the Mattole rivermouth in the north, Big Flat is a coastal jewel on a par with Big Sur. It lies amidst the mountainous wilderness of the Kings Mountain Range, and just getting there is a real challenge. So, you may wonder, why go to the trouble to hold a Surfer's Medical Association conference there? The answer is simple: Big Flat has one of California's premiere (and most unknown) surf breaks: a high-quality right point. Along with bears, eagles, and redwoods, Big Flat is also the home of fellow SMA member, Nelson Swartley. And Nelson, bless his kind soul, has offered to help the Surfer's Medical Association hold a conference there.

The conference will be on wilderness surf medicine, owing to the location of the meetings and the fact that everyone attending will be expected to hike in (and out) and camp. It's only about an eight-mile hike on the beach from Shelter Cove. There are various other ways to go in - plane, boat, horses, all-terrain vehicles - but the natural way is to walk. Weather permitting, (which it almost certainly will be: late October is said to be the best time for weather and waves at Big Flat), Nelson has offered to use his plane to fly in the necessary equipment for the conference, including member's surfboards and camping gear. (He has a dirt landing strip in front of his house.)

SMA member Mark Bracker, MD, a UC San Diego family practitioner and a powerhouse in the fields of wilderness, sports, and travel medicine, will be our workshop leader for the weekend. Mark will provide ten hours of curriculum (spread out over the four days) on wilderness surf medicine (including a syllabus), covering such topics as the management and treatment of near-drowning, handling severe injuries in the wilderness, marine and coastal animal hazards (shark bites, rattlesnake bites, etc.), wilderness infections and problems with the skin and eyes, and many other important subjects. The emphasis will be on acquiring practical wilderness medicine skills and knowledge, and should prove useful to all SMA members, health professionals and barefoot doctors alike.

Meetings will be held around a campfire and in Nelson's barn, which has a generator, permitting the use of slide and video projectors. SMA members attending the conference will be expected to bring their own sleeping bag and tent -- there are fantastically beautiful places to camp around Nelson's house, in the forest, beside the Big Flat river (yes, it has fish), and along the beach. The SMA will bring in a cook and all the food.

There will be lots of time for surfing and exploring. The workshops will generally be held in the evening. Daytime temperatures should be pleasant, in the 60's to 70's, but at nighttime it can dip into the 40's. There is rarely rain that time of the year, but it's possible. The water temperature should be in the low 50's (a 3mm wetsuit would be adequate, but a 4 or 5mm would be best, plus booties and hood, particularly since an upwelling can suddenly drop the water temperature). The surf should be in the head-high to double-overhead category (if there's a swell), but when it's smaller it can still be surfed. It can get huge and

The Crew at Big Flat

perfect. In addition to the one main right point, there's a second right point/ rivermouth break just down the beach, and a sometimes surfable left beachbreak in between.

Well, so how did it all work out? Probably the best summary of the conference is this: "the surf maxed-out at a sloppy 2' and nobody really seemed to mind." Big Flat worked its magic on all of us and by the end of the four days even the most hard-core seemed content to sit back and enjoy learning, sharing knowledge and each other's company. The setting was magnificent, the food abundant and delicious, and the hot tub stayed well-stoked.

With as many artists (4) as MD's, the group was a diverse one, with a good mix of medical and non-medical SMA members. Mark Bracker's excellent presentations provided a focus for the conference, and there was a great deal of mutual learning in the ensuing discussions. Ward Smith, UC Santa Cruz surfing instructor, who had some initial trepidation about coming to a medical conference, sent us his account of the conference:

"As amazing as it might seem, doctors (or at least those that surf) are human beings, normal people and regular folk. They hike, eat, play, joke around — I bet they even shop at the grocery store like the rest of the masses. Although I did not get to see them in the grocery store, on October 20th through the 23rd, I did get to witness about 16 of them performing other menial but normal tasks, as well as the most sacred activity of all — surfing.

"It was with much doubt that I sent the SMA my check and requested a space at the Wilderness Surf Medicine Conference to be held at Big Flat, California. Shortly after reserving my space, I called a couple of doctors who are members of the SMA. I asked if the conference would be totally over my head. Would I be able to understand the various speakers? After all, my medical terminology was limited to bandage, aspirin, Pepto Bismol®, and a few more generic terms I couldn't spell. They assured me that I would not get lost in the shuffle. I figured that even if I did, hey, I would be at Big Flat, and the surf would probably be spectacular, so who cares. Boy, was I in for a surprise!

"Our meeting place was the Shelter Cove airport. I didn't even know Shelter Cove had an airport, but then I'd never been there before. At 8:00 a.m. on Thursday I arrived at the airport (really just a paved landing strip with a wind sock) to a crowd of a dozen or so people huddled around a pile of baggage and surfboards. As I surveyed the group, I recognized 3 or 4 faces. After a few introductions, I gently put my possesions, including my brand new stick, into the pile. A plane flew in out of nowhere to pick up our gear and fly it to our final destination at Big Flat. As we began the 3 and 1/2 hour hike to Big Flat my mind began to race. Would I ever see my possessions again? Could I stand spending four days with a bunch of doctors? Would I learn something at the conference? How much longer until we get there, dad? The luxury of not having to carry our boards and other camping gear made the trip a pleasurable walk instead of a grueling hike.

"Upon our arrival at Big Flat, we were treated to a fabulous lunch. Then we all went surfing at a few local spots. The surf was less than spectacular but it was still better than the surf we had left behind at our respective home breaks. We had a great time, in spite of the surf.

"After a scrumptious dinner, we assembled for the first evening of lectures. After the introductions I was pleased to

Nelson Swartley, one of the two locals at Big Flat

learn that I was not the only non-health professional at the conference. This was very reassuring. The first topic discussed that evening was snakebites. The lecture with slides was clear, concise, stimulating and easily understandable. I learned a number of practical things that I could do to help a snakebite victim. The second topic, malaria, although a little more technical, was handled equally as well. The topic was addressed by a malaria survivor as well as a doctor. I was amazed by the casual yet informative nature of both lectures. I was particularly pleased that my lack of medical knowledge was not detrimental.

"Throughout the weekend a number of fascinating topics were covered: traveler's diarrhea, vaccinations for travelers, bites, marine life hazards, the life of Tom Blake, and a hilarious Doc Ball video. All the topics presented were interesting, relevant, and entertaining. Not once was I made to feel like the dumb kid on the block.

"The highlight of the conference was the discussion on a surfer's first aid kit. A rough draft of a kit was submitted for discussion. Additions and deletions were made based upon comments and suggestions from the group. As a non-health professional, my ideas were welcomed and encouraged. As a result of two different afternoons of discussion, I acquired a great deal of practical medical information. This part of the conference was particularly stimulating for me because surfers so often find themselves in isolated havens without any medical facilities. The proper first aid kit could not only put a surfer back in the water more quickly but it could quite possibly save a life. I was so impressed with the first aid kit that I will have one in the trunk of my car at all times.

"During the course of the conference the surf diminished and the real energy focused on the issues we had come to learn about. Everyone I talked with was very enthusiastic about the conference, even though the surf was marginal. Many new things were learned, new friends made, and the food was fantastic. The conference was far better than I ever imagined and as a non-health professional I will remain an avid participant in the SMA; it's a great organization."

Aside from the beauty of Big Flat and the pleasure of four days of good company, the most striking thing about the conference was the synergy between medical and non-medical SMA members. It was the kind of grass-roots interaction that the SMA is all about. As surfers, we were all equals, with contributions to make to the process of learning how to keep surfers healthy. Those without formal medical training added many insights into the issues of surfers as barefoot doctors and wilderness travellers. Having a mixed group kept things at a practical level where real progress could be made toward the goal of helping surfers become healthier.

This was how it should be, trading tips on the use of royal jelly and garlic pills for advice on when to take erythromycin and pseudephedrine. At Big Flat, stuffed-shirt doctors and barefoot doctors found that both could contribute in equal measure.

Rym in full breeding plumage

SMA WEEKEND IN SANTA CRUZ

By Rym Partridge, DDS

The October 1st SMA party at Bob Chatfield's and Rym Partridge's was raging and a raging sucess. It was *sooo* much fun at the Saturday evening party that I could barely move among the shoulder-to-shoulder guests at the Partridge house.

The weekend schedule:

Friday, Sept 30 Surf came up 4-8 ft. Some of the southern SMA members arrived in vans: Shale Gordon and Tom and Pam McLaughlin (Tavarua surf camp graduates), along with Jody Kirk, assistant editor of *Surfer Magazine,* who came to see what the SMA really does in its social leisure time.

Saturday, Oct.1 More surfing — Scott Thayer, Jeff Dale, myself, and Jerry Cook get some great 4-5 ft. waves at a lesser surfed reef. **Afternoon** Bob and Barb Chatfield hosted an SMA Barbequeue. Hank Landemare III, DC brought his surf music band, the "Surfonics" to play. These guys were great! Easily some of the best surf music renditions I've ever heard; they played the Ventures, Surfaris, and Endless Summer material, with either delicate or full foot-stomping intensity.

Evening, Oct. 1st — The Main Event: Sixty to eighty people converged on Rym and Winnie's house just in time to hear Craig Wilson present slides and an inspiring talk on SMA Third World

medicine in Nabila, Fiji. The compassion and sensitivity Craig has shown toward the Fijian people will probably make him a medical kahuna in our time. Mark Renneker's talk, an "Overview of Surf Medicine", also captivated and even quieted the thirsty crowd's attention; something I couldn't do even with a megaphone. Mark's slide show (now the official SMA surf medicine slide show) is a presentation covering material from sputum cytology in pot-smoking surfers to how the SMA can make a difference in the future health and enjoyment of surfers of all ages. The crowd was intently focused and inspired by Craig's and Mark's slide shows. The Surfrider Foundation, represented by Dan Young and Steve Merrill, told us how we can help further a common SMA Surfrider goal: "Preservation of the health of our surfriding environment."

Surfer Magazine feels strongly enough about the SMA's goals that they sent their dynamic assistant editor Jody Kirk. She is the main force behind the SMA/*Surfer Magazine* "Consult the Surf Docs" column and supports us like a mother nurtures her babies. She's great! Jody was the life of the party for the whole three days and is continuing to help further the SMA goals, both at the *Surfer Magazine* media level as well as lending her own personal support. She was able to get Paul Holmes (Editor-in-Chief of *Surfer Magazine*) to contribute the magazine's Tropical Paradise Video to the SMA Library. This film is not only a great prototype for an SMA story film, but it shows our beloved Fijian friends and specifically Tavarua Island waves and memories. Thanks Paul — thanks Jody.

Another notable media guest was Allston James, environmental editor for *Surfer Magazine*. Two well known surf photographers, Chris Klopf and Dan Devine, were among the guests; with Klopf taking photos for an article on SMA to come out in *Surfer Magazine* in March '88. One of the last treats of the SMA party was a deluxe slide show on waves, scenes, and people, presented by Dan Devine -- some of the best shots one could ever see. How good is Dan's eye? One of his shots of Pipeline won *Surfer Magazine's* "The Photo of the Year" contest a couple of years back!

Amid the surf health revelry was some serious business being conducted by Scott Thayer and others to help new SMA members join and make plans for upcoming SMA surf trips to Big Flat and Tavarua Surf Camp. At least $1,600 in new membership dues was contributed to our SMA projects, along with a large amount of projected human energy to be forthcoming from our enthusiastic new members. Welcome, guys and gals who joined.

Most inspiring were some new members who are not medically educated, but were thrilled to contribute and be part of an organization of surfers with health and safety as a goal.

There were some wonderful ladies there, most of them either surfers themselves or very involved in ocean activities. We welcome this support from the female SMA sector in membership and projects. Ladies — as you know — can get things accomplished better than surfer boys. So, watch out — our female membership is growing!

There was a conspicuous absence of the SMA Australian contingent; I know, too far to paddle, mate! Dr. Geoff Booth came over from Down Under for my housewarming party last year but couldn't make this one. His hearty laughter and vibrant party clothes, along with the trendy Australian ambiance, are always missed at a gathering of SMA.

With our one last party objective completed, we've set off to get other areas to have their own SMA meeting party. We had fun! We hope we have inspired other areas to have an SMA meeting party. Hey, San Diego, Florida, Los Angeles, get all your Surf Docs and interested people in one place and spread the Surfer's Medical Association word, according to Painless Partridge — "Let's heal some people and ... GO SURFING!"

— Aloha, Rym Partridge, DDS.

Rym and Bob surfing the ice plant for a Santa Cruz Sentinel *article on the SMA.*

SURF MEDICINE FEATURES

SURFING AND MARRIAGE - A SPECULATION

by Larry Decker, PhD, Clinical Psychologist, Santa Barbara

INTRODUCTION

Most relationship communication, if likened to neurological transmission, would resemble a grand mal seizure. With the divorce rate variously estimated at anywhere between 40 to 60%, the possible success rate of a married relationship is apparently not much better than chance.

The technical journals have published a significant amount of research pertaining to difficulties in the marital relationship. Some of the previous subjects, which have been well researched, have been marital satisfaction (Spanier and Lewis, 1980), family dynamics (Hoffman, 1988), gender politics (Stark and Flitcraft, 1988), and various theoretical/therapeutic approaches (Maturana and Varela, 1987).

The present paper is primarily concerned with the effects of surfing on long-term relationships. While surfing is certainly not a major factor in most of the country's relationships, it is becoming an issue in the coastal regions. As a private practitioner, I am seeing a considerable increase in the frequency and degree of importance given to a spouse's surfing activity and the ways that activity interferes with satisfactory emotional relationships.

POSSIBLE VARIABLES

It is difficult, if not impossible, to isolate just the variable of surfing from the myriad of other factors inherent in a dysfunctional marriage. In addition, most "hardcore surfers" have sacrificed careers, relationships, and even children in their pursuit of something almost indefinable to a non-surfer.

The variables generally regarded as interfering with marital harmony are centered around emotions (anger, guilt, resentment, and anxiety), practical issues (poor communication, ideas on child-raising, career orientation, and sexual activity), and domestic violence (battering, abuse, and molestation). In the light of those difficulties surfing would seem to be a minor point. However, as any surfer can tell you, the surfing life is to be lived.

Probably the major issue that surfing introduces into a relationship is the decrease of physical/emotional contact between the partners. What was acceptable behavior in the adolescent relationship, even a status symbol, soon may become a negative point as individuals progress into young adulthood.

We ran this cartoon from an old Playboy *in the last journal, expecting at least a few complaints. Instead it got rave reviews - maybe this article is even more appropriate than we thought. --KS*

Middle-aged couples may have children, as well as many other responsibilities, which add to the stresses of living. Surfing activity, in this group, is almost always regarded in a negative manner by the non-surfing spouse (try saying that 10 times very fast). Surfing is seen as interfering with the emotional potential of the relationship, a hindrance to financial security, a "useless activity" indulged in by "selfish" people, and strong evidence for an adolescent fixation.

The vast numbers of non-surfing spouses have at least two basic emotions when the subject of surfing is brought up: anger and disgust. The activity is little understood and even less appreciated.

TREATMENT APPROACHES

Regular treatment approaches, which do not take into account the importance of surfing in the surfer's life, may produce increased resentment from the surfer and generally exacerbate the relationship difficulties. If surfing activity is given its proper due, in a complete therapeutic approach, there will be some form of emotional venting and education for the spouse.

Surfing, because of its popular adolescent image, is different from golf or other week-end sports. Attempts must be made to reveal more mature surfing perspectives. For example, if some of surfing's more "adult" aspects (possible networking, business contacts, etc.) are emphasized and discussed, the level of spousal anger can begin to decrease. However, as it is extremely difficult, even for very articulate types, to put into words the surfing experience, there are distinct limits to education.

Secondly, there must be the realization by both parties that they can only change themselves. Most individuals come into psychotherapy, particularly marital therapy, in order to change the other person. It is specifically important that the surfer realize that certain aspects of his commitment to surfing must change.

A change of priorities does not mean that we are compromising our values or our commitment to our source of inspiration and renewal.

Indeed, because of their refusal to balance their surfing life with other meaningful activities, there are several

older (mid-forties) surfers currently in treatment with me. They have serious regrets, bordering on clinical depression, directly related to what they now perceive as a "wasted life." Most of their lives were devoted to the deep interaction with the ocean, with the result that they now have almost nothing in terms of career, education, or opportunity in their middlle-ages. While they are extreme cases, they serve as an example to those now in a dysfunctional marriage, still struggling with the adolescent fantasy self-image of the rebellious surfer who will live forever.

However, the most effective and long lasting solution to the difficulties that surfing may bring to a relationship, is to be found in the activity itself. Surfing can be a connection to deep inspiration, the awakening of courage, the overcoming of enormous physical difficulties, and finally the discovery of a deeper, more resilient self. If we are able to feel the awakening of those qualities then we must be able to translate these discoveries into action in our relationship.

Most people are in a relationship because they want to be loved and to love. The greatest depth in surfing is intimately connected with love; love of an existence beyond the narrow materialistic mundane. Surfing allows us to peek past the ordinary for a few moments.

Practically every woman who has ever been in marital therapy with me has stated that she would not care how her partner chose to live his life (within some boundary) as long as he was romantic and loving. Romance and loving awaken in us when we are truly in harmony with our nature. We are part of physical nature, we are made from this earth and this ocean. When we surf we come into close proximity with our very creation. We can take those feelings discovered in surfing and apply them to life.

Besides the esoteric realizations of surfing, there are obvious metaphorical aspects. Be willing to appreciate the strong winds of argument even as we appreciate the strong offshores or the beauty of the turbulent ocean. To do that, we must be willing to not give so much importance to our justified perspective. We must be willing to accede to the greater view much as when we accept the conditions of the ocean.

Most relationships require some sort of balance in the developing of marital harmony. Just as a wave may demand constant shifting of weight in order to keep position and flow, so does a relationship require constant growth in awareness of the other's needs. All change always begins with oneself.

CONCLUSION

There is a story: There once was a man, who was both the wisest and most foolish of men. Of course, he became a judge. One day he was hearing a case and he was so moved by the prosecutor's eruditeness that this wise/foolish judge said, "You're right." The Baliff quickly reminded him that he must now hear the defense. However, the judge was now so moved by the defense that he said, "You're right." The poor Baliff stood and said, "But your Honor, they can't both be right." The judge looked deeply into his eyes and said, "You're right."

This piece was intended as a beginning, a stimulus for possible dialogue, and an attempt to push at our concepts of each other.

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ADDENDUM

My approach to psychotherapy is one of creative process, as contrasted with other, more structured goal-oriented systems. The process approach precludes giving patients practical suggestions. However, this perspective does not seem very important in terms of what this article may have to offer. So, when the editor of this journal requested that I include some practical advice, I agreed. Here are some possible ideas, clarifications, and practical examples from the preceding work.

1. The first idea, that of education, can be taken care of in a multitude of ways. Keep in mind that the educational goal is to change attitudes and beliefs (which may be very hostile and resentful) regarding surfing and the surfing community.

As surfing continues to prosper, and participants continue to age, the result will be a genuine range of ages in the lineup. No longer are you considered an anomaly if you are over 40 and still surfing. (There is a great article here on the psychology of aging and surfing.) Even Mickey Dora, who, in the mid-60s, called anyone over 30 and still surfing a "senile surf freak," is now over 40 and reportedly still surfing.

If we can overcome our mutual embarrassment and struggle past our individualistic non-joiner attitudes, surf clubs are wonderful ways to demonstrate the maturity of the sport, and provide opportunities for family participation.

The Santa Barbara Surf Club is a good example of older surfers networking and providing a social and family camaraderie. In addition, the community service chairperson, Ms. Eda Rocky, organized an excellent activity effectively combining altruistic service along with surfing. Ms. Rocky coordinated the surf club and the local Braille Institute with the result of a day of surfing experience for many blind adults and children.

2. Most of our lives are directed by what we value the most. Regardless of what we may say about our values, our actions are generally taken as more valid proof of what is important. Basic consideration combined with genuine romantic moments goes a long way towards reducing marital friction.

3. Anger, resentment, guilt, anxiety, and other difficult emotions are best dealt with through professional assistance. Marriage counselling, with someone who understands both surfing and the non-surfing spouse's perspective, can significantly increase the level of marital harmony.

4. If surfing is able to be balanced with other physical activities, which can involve the non-surfing family members (i.e. bicycling, tennis, hiking, etc.), a greater sense of cohesion and lessening of family tension will result.

5. Finally, at the basis of all of this, behind all of our lives, is the experience itself; not just riding the wave, but the entire ritual and its accompaniments. If we can feel the vastness of what we do with the ocean, then we have a responsibility to communicate that awareness. We don't have to talk about surfing, but instead live the discoveries we encounter each time we enter into that great mystery. That living must have as its most important result our relationships, and, most vitally, our deepest, most intimate relationships with our loved ones.

"They say that paradise will be perfect with lots of clear white wine and all the beautiful women. We hold on to times like this then, since this is how it is going to be." —Jellal Ud Din Rumi

Surf Clinics - SMA Involvement in Surfing Contests

by Alex Kaliakin, DC

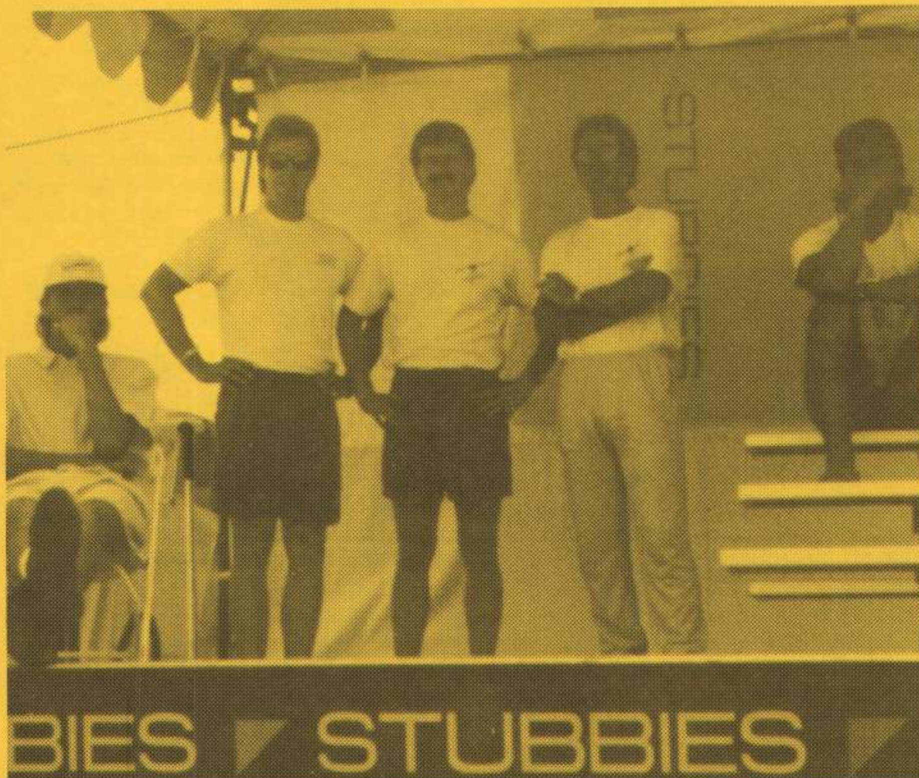
Involvement of health professionals in sporting events is nothing new. Physician/trainer/emergency personnel/ health personnel involvement during events is a large part of sports medicine, but similar activities at surfing events have been minor at best. No organized health activity has really existed except for a few notable efforts from individuals such as Doc Scott of "Pro Plugs" fame.

Similarly, I have been personally involved on a solo level, performing chiropractic services at pro surf contests for the past 6 or 7 years. These include the old Hang Ten series, the O.P. Pro and 4 years of Stubbies Pro involvement (all are California contests). The Stubbies has been the most favorable organization for this sort of participation. This summer marked the second year of the SMA involvement in this contest and included SMA members: Mark Bracker (sports medicine), Tom McLaughlin (physical therapy), Shale Gordon (cardiology), and myself (chiropractic). Non-SMA members contributed so that total participation included sports medicine, physical therapy, massage, and chiropractic. Participation varied but was very well appreciated (for example, 3 different specialists discussed current women's world champ Wendy Bothas' knee problems with her). Examination and discussion were not only on an individual basis but on a coach/trainer level also (discussions with Derek Hynd, coach to several Aussies, for example).

Issues of SMA contest involvement in the future are many and include:

1. Developing a screening form (do we need one or don't we?).
2. Enlisting volunteers (problems of time, lodging, SMA funding, etc.).
3. Determining what services to offer (treatment brings up a liability question).
4. Research possibilities (will the contestants participate with points, money, and concentration on the line?).
5. Promoting the SMA (including fund raising, need of a brochure for sponsors already involved with surfing at contests, and press coverage).
6. Promoting general public health awareness
7. Charging for services (an unreasonable expectation and even though the Stubbies and the ASP are currently very excited about the SMA involvement, the O.P. turned us down).

The SMA will continue in this line of work, regardless of just how these issues are resolved. Individuals are encouraged to contact contest coordinators and sponsors, whether it be on a local, amateur, scholastic, or professional level. For more information and assistance with approaching a contest, or interest in helping us with existing projects, contact me at (213) 458-1758.



SMA members at work

Surf Medicine: The Doctor-Surfer Relationship

by Geoff Booth, MB, FACRM

Surfboard riding as a lifestyle activity continues to grow in popularity. Surfers are starting at an earlier age. They are continuing into much later years. What was once, in the main, a purely adolescent fad is becoming a centered lifestyle pursuit spread over at least 25 or more years.

Many surfers who gave up surfing in the late 70s are returning to the sport - observe the rekindled Malibu push. Some of the "born again surfers" are ultimately returning full circle to modern, performance oriented, shorter surfboards.

As doctors, we are privileged in having training and exposure to the way the body works and how it responds to various stresses. We can help injured and sick surfers "get better." However, we also have obligations to pass on our experience via appropriate instructions to the surfboard riding populations so as to prevent various health problems.

We can do this in a number of ways:

- Firstly, we need to help younger surfers feel the positive benefits of general "good health" and facilitate their exploration of appropriate "healthy lifestyle behaviors."
- Secondly, teach bodily self examination as part of a drive toward enlightened awareness of body function. This in turn promotes earlier detection of abnormal change (for example skin cancer) which can enhance medical treatment should this be necessary.
- Thirdly, assist surfing performance by careful examination of the musculo-skeletal system looking for habits, anatomical variations, or disease, which if left unchecked, might impair performance. At the same time, accurate assessment of the musculo-skeletal system and appropriate exercise instructions will enhance performance by virtue of promoting correct warming up excercises, stretching, strengthening and exercising regimes.
- Finally, examining risk factors to surfers' health in terms of element exposure (sunlight, cold, wind), lifestyle risks (cigarettes, alcohol, drugs etc.) and use of appropriate safety/protective devices (leg ropes, helmets, surfboard design, etc.) and disseminating this knowledge to surfers in the most appropriate form.

There are three major "risk" areas in surfboard riding. Doctors must be aware of these in terms of not only diagnosis and treatment but, most importantly of all, in terms of prevention.

1. Direct traumatic injuries. Serious injuries are relatively uncommon, with a

frequency of 3.5 moderate to severe injuries/1000 surfing days in recreational surfboard riders, and 4.0 moderate to severe injuries/1000 surfing days in international competitive surfboard riders Types of traumatic injuries include:

Lacerations	41%
Head (59%)	
Body (41%)	
Sprains and strains	35%
Fractures	15%
Body (53%)	
Head (47%)	
Ear perforations	6%
Contusions	3%

2. Element Exposures (cold, wind, ultraviolet radiation). These affect especially: ears (exostoses, infections), eyes (sunburn, pterygia, cataracts, retinal effects) and skin (sunburn, premature aging, cancers). Hypothermia and exhaustion are also the result of exposure to the elements.

3. Lifestyle Risks include:
• Failure to use surfing safety equipment or more appropriate board design.
• Transportation (cars, motorbikes, pushbikes)
• Infections (sexually transmitted or associated with travel)
• Use of drugs: legal (caffeine, nicotine, alcohol, prescribed and proprietary) and illegal (THC, cocaine, narcotics, amphetamines, hallucinogens)
• Failure to understand the way the body works and particularly one's own body — in terms of feelings and responses.

In general terms, surfers often take risks with little knowledge of the consequences of their actions. Sometimes this stems from a lack of awareness of their abilities (in terms of strengths and weaknesses) and the demands of the sport itself (in both physical and mental terms).

Ideally, by teaching the surfer about his/her body and giving methods of self assessment/self awareness at an experiential level it should be possible to match these up with the actual demands of surfing. By doing this, the surfer would know how he/she matches up. Any variations in bodily function would be felt much earlier in such a heightened state of bodily awareness.

MINI PROFILES IN MAXI COURAGE

by Jody Kirk

What follows is a special preview for the Surfer's Medical Association of an article I'll soon be doing for Surfer Magazine, where I've been Assistant Editor since September 1985. During my tenure, many letters have come across my desk — four, in particular, have had a profound effect on me. All were written by surfers with physical problems, which they overcame with the help of medical science and, more importantly, by their own sheer guts and determination.

Although their medical problems are totally different, there are common traits shared by all four young men: a burning desire to surf, no matter what; the refusal to accept the limitations placed on them by others; and the courage to dare to dream, in a world where those less than physically perfect are so often discouraged. Allow me to introduce you to my special friends.

RICHARD FLETCHER

I first met Richard through a letter from his mother, in which she said, "If my son knew I was writing this letter, he'd kill me." Richard is 15, and has epilepsy. When first diagnosed, he lost all will to live. All Richard wanted to do was surf, and the doctors he'd been seeing were dead-set against it. All except one, who put Richard on medication, and made him promise never to surf alone. Richard has recently started entering contests, is surfing better than ever, and his buddies are now almost as knowledgeable as Richard and his Mom on the subject of epilepsy.

TEDDY HAINES

I first heard from Teddy about a year-and-a-half ago, when he was 13. He was in the hospital receiving treatment for a Burkitt's lymphoma, which was later diagnosed as a rare B-cell leukemia. Although soon to be released from the hospital when he first wrote to me, Teddy was very depressed because he wouldn't be able to surf for quite some time (he'd recently received a bone marrow transplant from his twin brother, and was still vulnerable). As of late summer 1987, the doctors pronounced Teddy cured of leukemia, and he is currently ripping every wave he can get his board on.

GENO HOPKINS

This 25-year-old is the only one of my four new found friends to have been born with his physical problem: arthrogriposis, a progressively crippling muscle/joint disease. Although his family had been told Geno would never walk because of the severity of his condition, Geno grew "tired of being in a wheelchair" at the age of 5-or-6, and taught himself. He's had 32 operations, including a fusion on his legs at age 13 — "they don't bend anymore," he says, nonchalantly. Most of Geno's younger days were spent in braces or casts of one form or another, which "earned me some pretty interesting nicknames," he recalls. Although Geno can not make a fist with either hand, he writes and draws with the pen in his teeth, and designed some special grips so he could play drums in a garage band — "I'm nuts about music...the only thing I love more is surfing, which I'm gonna do if it kills me," he says. I believe him.

JOHN PRZYBYSZEWSKI

John is 22, and lost a leg to cancer at age 13. He recently designed a surfboard for himself, with a special stand for his prosthesis (his letter was printed in a recent Surfer's Medical Association column in Surfer Magazine). Since John's letter was published, we've received numerous phone calls from people donating prostheses, wanting to help design special boards, and commending him for his courage. John has also met with the SMA's own Doc Hazard (Mark Renneker), as well as with Surfer Magazine's Design Forum editor, George Orbelian, and the results of those meetings will be a part of John's profile in the article. Not one to rest, even when he's out of the water, John also teaches physically challenged kids how to ski in the winter, and has, himself, won many competitions.

There is much more inspiration to be had from these fine young men, and that's what my upcoming article will focus on: how they've each faced and dealt with their individual challenges; how their families and friends — as well as the medical profession — helped get them where they are today, why surfing has been so important to them, and just where, exactly, they got the incredible inner strength, determination, and courage that makes them stand out from the rest. Each of these men is as unique as his courage, and I feel honored that I'll be able to present them to you in more detail, soon.

CASE REPORTS

Malaria In Surfers

by Mark Bracker, MD
and Mark Renneker, MD
(For Surfer Magazine)

Does the average surfer need to worry about malaria, or is it just some exotic disease in darkest Africa? Consider the following true story:

"It was early in the morning when I [MB] heard the car bouncing through the jungle towards our surf camp on a remote beach in Panama. Even before they got out, I recognized the all-too-familiar urgency in their faces. Our surf travel paths had crossed the week before and now they had come looking for me, knowing I was an American doctor. They told me about their friend, fourteen-year-old Jeff, who had suddenly developed a high fever and chills just two days before, and now was so weak he couldn't move.

"After six hours over rutty jungle roads we reached their camp, and there I found Jeff. He had a temperature of 104°, was sweating heavily, wasn't able to answer questions, and was essentially unconscious. I had my suspicions about what might be wrong - including malaria - but, according to his father who was traveling with him, they had all been taking weekly chloroquine tablets to prevent malaria.

"There wasn't much I could do for him there; I knew we had to get him to a hospital fast. But the nearest town was a good two hours away, the nearest airport at least a days' drive. We headed off right away, but shortly after leaving, Jeff had a major seizure and stopped breathing. Despite 45 minutes of CPR, I couldn't resuscitate him. Jeff, a fourteen-year old surfer, was dead.

"The autopsy, done back in the States, showed what had killed him: chloroquine-resistant falciparum malaria affecting his brain, which is called cerebral malaria.

Malaria is our world's worst disease, dwarfing AIDS or cancer. Over 3 million people die from it each year, 300 million people are infected with it, and the incidence is increasing. What is malaria? It's a parasite, a protozoa, that lives in our blood cells and is transmitted by the female Anopheles mosquito. Once a mosquito bites you, it first spits under your skin, as a way of preparing for an easier blood feast. It's in that spit that you get the malaria, if the mosquito is carrying it.

Brain tissue of a 14-year-old surfer at autopsy, showing red blood cells infected with malaria (dark ring-like forms).

The malaria belt extends worldwide across the equator, reaching to 40 degrees north latitude, 45 degrees south latitude, and up to 2,500 meters elevation.

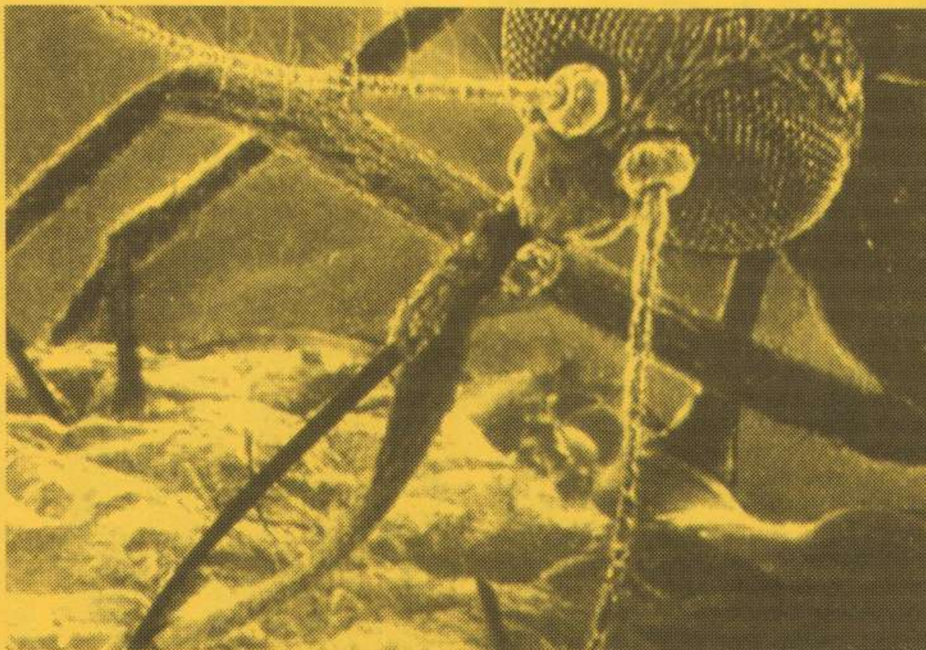
The places surfers are most likely to get it include virtually every tropical place they regularly travel to, excluding Hawaii, Tahiti, and Fiji (which are all free of malaria). As for the other dream spots - Grajagan, Nias, Majestic, even Puerto Escondido - we're talking heavy risk of getting malaria.

Prevention is the key. All tropics-traveling surfers should carry a mosquito net, and use it. Dawn to dusk is when the mosquitos feed, so if you're not under your net at sunset, cover up and use DEET-containing insect spray.

Finally, take recommended medications as prophylaxis (prevention). Every country has its own recommendations, involving many different drugs. And the recommendations change yearly, owing to the fact that malaria is a highly evolved parasite, able to develop resistance to virtually every chemical we have tried to fight it with.

The present general recommendations from the United States for preventing malaria are to take a drug named chloroquine phosphate, (Aralan®) 500 mg, once a week, beginning two weeks before travel and continuing for four weeks after leaving the malaria area. The problem is that there are four major types of malaria, and chloroquine won't necessarily take care of them all. The worst chloroquine-resistant type is falciparum, the type that killed Jeff in the above case. But the drug generally recommended in the past to prevent falciparum malaria, pyrimethamine-sulfadoxine (Fansidar®,) was found to cause some pretty horrendous side-effects if given on a weekly basis (such as all of your skin and mucus membranes falling off). However, it's safe (and effective) to take three tablets of Fansidar® at the earliest sign of a possible malaria infection (any flu-like symptoms, particularly if associated with high fever and chills). There have been no reported disastrous side-effects when Fansidar is taken as a single dose. If, in the above case, Jeff could have been given Fansidar, he almost certainly would have survived.

Don't necessarily rely on your physician to have the latest information on malaria prophylaxis; studies have shown that only 20 to 40% of physicians are able to give accurate medical advice on malaria. The Surfer's Medical Association recommends that you take it upon yourself to find out (1) if the area you are going to is known to have malaria, and (2)



Blood feast, Photo by Charles Davis, MD

what are the presently recommended medications for preventing malaria in that place.

Good sources of information include travel medicine clinics (usually associated with major university medical centers), your local health department, or else call the Centers for Disease Control in Atlanta, Georgia, (404) 639-3311.

Despite years of the best scientists in the world throwing everything they have at malaria, a successful vaccine against it has still not been found (but many will continue to be tested - the stakes are too high, more soldiers died of malaria in the South Pacific in World War II than were killed in combat).

The unfortunate truth is that all surfers may soon need to know even more about malaria. Chloroquine-resistant malaria is moving up the coast of Mexico at a rate of about 50 miles/day, and there were a small number of cases reported in San Diego earlier this year. That lead to studies of mosquitos living in the marshes around La Costa, in North San Diego county, and not only did they find that the right species of malaria-transmitting mosquito was living there (Anopheles), they even found some to already be carrying chloroquine-resistant malaria.

The Surfer's Medical Association will keep you posted as new information and warnings emerge. We are not suggesting that people in San Diego need to take such precautions as prophylactic medications, but we are saying that if malaria is in our backyard here in California, think what it's like in the rest of the world.

If you are traveling, think malaria. If you're feeling invincible, and are maybe considering not taking anything, just wait...either you are one of your buddies eventually will be hit. And once you've seen what a devastating disease malaria can be, you'll be a believer in taking medications to prevent it.

Incapacitating Facial Pain in a Hard-Core Surfer

by Chris Carver, MD
Neurosurgeon
Salinas, California

Frank is a 32-year-old white male and avid surfer. I first saw him on March 9, 1988, for persistent, severe pain in the left portion of his face, extending from under the eye to the cheek and up in front of his ear to the top of his head.

His problem had begun in November, 1986, when he experienced a dull ache in his left upper teeth and was found to have an abscessed tooth. He subsequently underwent treatment with antibiotics, but with persistent problems he eventually underwent a root canal and further tooth surgery. Since that time he had severe pain in the above mentioned areas. He describes the pain as a constant pulling, aching feeling with a background component which is dull and pressure-like. He notes particular difficulty with exposure to either extreme warm or cold, such as cold water or sunlight as well as when pursuing vigorous physical activity. All these things increase his pain markedly. In other words, surfing was making the pain worse. He was totally disabled by the pain — unable to work or surf. What is the diagnosis? Read on.

He had undergone extensive evaluations by local dentists as well as evaluations at the University of California at San Francisco and Stanford University Medical Center. Numerous treatment regimens were pursued, including pain relievers, tranquilizers, anti-depressants, as well as further surgery, including exploratory sinus procedures and biopsy and culture of the area of the prior abscess. He had been seen in a pain clinic at Stanford where he underwent temporary "block" by injection of the nerve under the eye. This provided him with only temporary relief. Eventually he came to see me.

My general physical and neurological exams revealed only one abnormality: a decrease in sensation underneath the left eye. Appropriate X-rays and scans ruled out tumor, abscess or other inflammatory processes. Even though he wasn't able to surf (due to the excruciating pain it caused), every time I saw him in my office he would give me the complete report on how the surf was at that very moment. He had always just come from the beach. He was hard-core.

I first tried a series of temporary nerve blocks (which are injections of a long acting local anesthetic into the area of the nerve) with good but only temporary relief of his pain. Because of the continued disabling nature of his pain, it was decided to attempt permanent blocks with injection of absolute alcohol into the nerve.

This has provided him with approximately 80 to 90 percent relief. He has since been able to significantly decrease his use of pain medications, but is not yet able to return to work. He has returned to surfing, though not at his prior level. For example, after hiking to the surf (as is sometimes needed in Northern California) he may find himself unable to go out because of the pain and misery brought on by the exertion of hiking.

In this case, the formal medical diagnosis is that of neuralgia of the trigeminal nerve, in the second distribution. The ultimate goal for this patient is to return to full-time surfing.

DISCUSSION

This unusual case illustrates several points with regards to peripheral nerve injury. Unlike the brain and the

spinal cord, where injuries result in a stroke-like condition of permanent nerve damage, a peripheral nerve injury does not necessarily result in a dramatic change in strength or sensation. This case illustrates an incomplete injury to the nerve (the nerve is not cut in half) whereby this patient is left with an incapacitating pain in the distribution of this sensory nerve.

In the peripheral nervous system (outside the confines of the brain and the spinal cord), there are three different types of nerves. One supplies sensation, a second supplies motor function (strength and muscle movement) and a third is non-volitional or "autonomic," controlling such functions as heartbeat and sweating. In this surfer's case, he sustained an injury to a sensory nerve resulting in a malfunction or change, in this case, pain. Frequently, injury to the peripheral nerve which supplies sensation results in a painful state which is extremely difficult to treat.

Since his pain was so severe and so lasting, he sought neurosurgical treatment of a type where we attempted to destroy the nerve to control his pain. This is obviously a very drastic maneuver and a situation no one wants to get into.

The best way to avoid such a situation is to look for warning signs of peripheral nerves not working correctly. These signs are simple and consist of pain that doesn't go away, increased sensitivity to heat or cold which increases the pain, and altered use of a muscle.

If, indeed, you experience these symptoms in an area that you have injured in some way (for example, you've banged your knee surfing, and you notice that the sensation in the top of your foot is not quite right and that the strength in your foot seems to have decreased) you should seek consultation early. Do not wait two to three to four months, because by then it may be too late to cure the problem.

To extend the discussion somewhat, facial pain can be related to ear problems. Ear problems are common with surfers, especially in colder climates and one can develop a problem affecting the nerves to the face from an ear infection and/or ear bony growth (exostosis). These problems are extremely difficult to treat and not infrequently have unsatisfactory solutions despite numerous attempts with drugs and surgery. Similarly, if you have persistent pain, altered sensation around your ear and/or face, or a change in the strength of your jaw or the muscles of your face, don't ignore it, have it taken care of.

From the standpoint of neck and low back injuries and pain, the more serious injuries do involve peripheral nerves. The nerves to the arms and legs arise from the neck and low back, respectively. Any neck or back injury which results in pain radiating down an arm or down a leg needs evaluation (i.e., by your family physician and/or neurologist). Of more concern is a situation where not only is there radiating pain down an arm, but there is associated tingling or numbness as well as weakness in either arm or leg. These are danger signs of nerve root compression and/or injury and should not be ignored.

Surf Medicine from the Inside: Severe Facial Laceration in an SMA Fellow

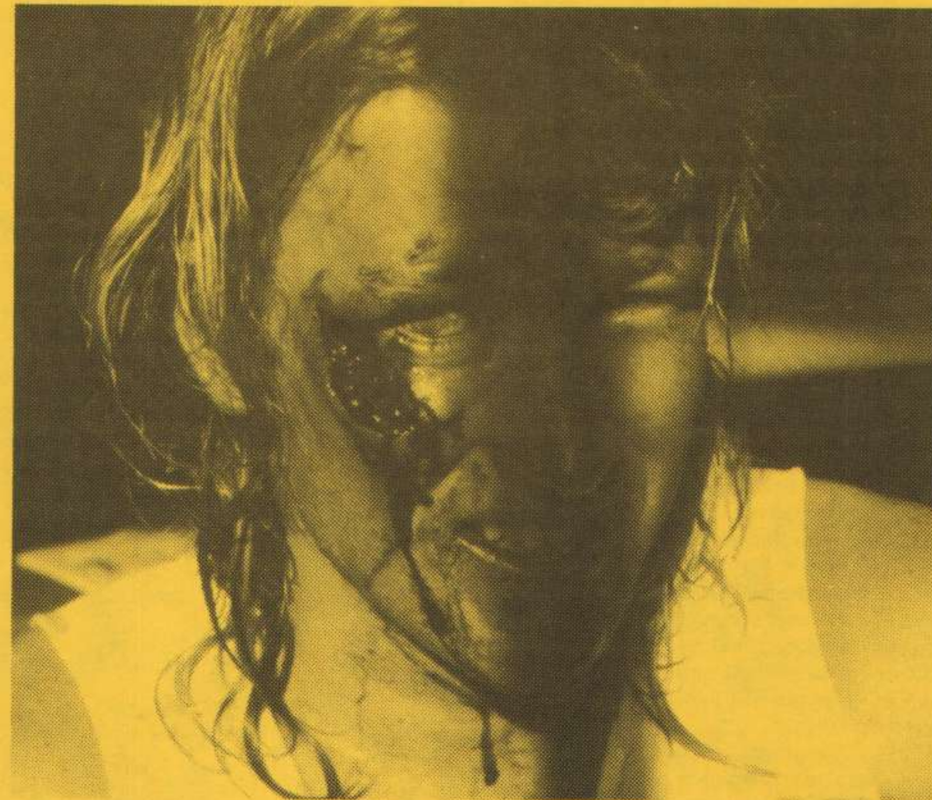
by Kevin Starr, MD
San Francisco

On October 8, 1988, I was surfing outside Ocean Beach on a sunny fall day, the first real swell of the season. Earlier that day, it had been double-overhead, top-to-bottom, and clean, and I'd surfed for three hard-paddling hours. I'd paddled out again in the afternoon with SMA members Mark Renneker and Bernie Tershy and had been out for a couple of hours. I was thoroughly exhausted, and when the waves got a bit sloppy I decided to take "one last wave" into the beach.

My "one last wave" jacked up hard as I paddled weakly into it. The bottom dropped away and the lip hammered me as I tried to throw my board away. I pitched forward, eyes shut tight (contact lenses are expensive), trying to dive for the bottom. Halfway down the face, the world exploded as something hard struck the right side of my face with tremendous force.

Stunned, I bobbed up in the foam as the water turned crimson around me. I seemed to be able to see OK, but couldn't close my right eye. I waved to Mark, who was still way outside. He waved back — having had the pleasure of seeing me go over the falls many times before, he thought I was waving to say *I was OK!* Shaken, but able to paddle, I rode the white water into shore.

My right eye began to fog as I splashed through the shallows, causing momentary panic until I realized that it was just my contact lens clouding because I couldn't blink. Bernie had been waiting for me on shore; when he saw me, a look of horrified shock crossed his face. Recovering quickly, he adopted a reassuringly calm expression and we began the short walk home.



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In the meantime, Mark had ridden a wave in and joined us on the beach. He made no attempt to hide his shock, registering a look of nauseated amazement. After a short huddle, Mark

headed off to his nearby house to call the plastic surgeons, parting with a warning to prepare for the worst before looking in the mirror. Coming from a hard-core aficionado of zombie movies, his warning seemed real cause for concern.

On initial view, it did look pretty bad. I had a jagged laceration through to bone extending from the lower cheekbone (infero-medial zygomatic bone), through the outside edge of the eye (lateral canthus), and up into the temple (see picture). My lower cheek sagged down, leaving a yawning gap between the wound edges. My right eye bulged open — through the cut, the muscles could be seen twitching uselessly as the lid moved only slightly. I figured that I'd probably severed the orbicularis muscle (a muscle which circles the eye, closing it), but was worried about the possibility of damage to the facial nerve. A quick exam of my board revealed slightly shattered fiberglass on the sharp trailing edge of the back fin and new cracks at its base.

After getting dressed, we went to Mark's house, only to find him going through the Yellow Pages under Plastic Surgeon. It seemed that all the plastic surgeons he knew were at a convention in New Orleans. Finally he got ahold of the chief resident at UCSF Medical Center and posed the question, "So, if your wife had a bad facial laceration, who would you get to sew it up?" After a moment's hesitation the surgeon said, "Hell, I'd do it — I'm as good as anybody else around here." That was good enough for us and we arranged to meet him in the emergency room in ten minutes.

It turned out that the chief resident called the Chief of Plastic Surgery and together they examined the wound in the emergency room. Spurred by Mark's warnings about microscopic fiberglass fragments and unusual marine microorganisms, the surgeons quickly decided to do the irrigation, debridement, and repair under general anesthesia. After an extra-heavy duty irrigation, they were able to determine with the operating microscope that there was no major nerve damage. The fin had severed the orbicularis muscle at its insertion on the zygomatic bone and had entered the orbital fat without disturbing the eyeball or extraocular muscles (the muscles that control eye movement).

The orbicularis was re-attached to bone and a reconstructive closure was done in multiple layers, requiring extensive trimming of the jagged wound edges. I received IV cefazolin during the surgery and checked out of the medical center the next morning with a week's supply of cephradine tablets.

I managed to stay out of the water for a week — the surgeons had recommended six weeks. Dan Sooy, SMA ENT surgeon, felt that the only significant risk after one week was from a direct blow, and so I padded the hell out of it with steri-strips, gauze, and waterproof tape. This assembly was awkward, took about fifteen minutes to put together, and lasted about the same amount of time in the surf. The surf was lousy the next week and when I finally went out again, I covered the wound only with SPF #30 sunscreen to prevent darkening of the scar (see discussion below).

Now two months out from going over the falls, the wound is healing well. The surgeons achieved an amazing cosmetic result for such a nasty cut, and small children no longer run and hide as I approach. The eyelid still does not close properly: the orbicularis muscle is still somewhat boggy and it appears that I may have denervated (cut the nerve to) a part of the lower lid (this will probably resolve in six months or so). I haven't been able to wear a contact lens out in the water because the upper lid is too tight from surgical trimming and edema (swelling). The prognosis for full functional recovery with only minimal scarring is quite good. I was very fortunate to 1) have avoided damage to my eye, and 2) have had access to such excellent medical care.

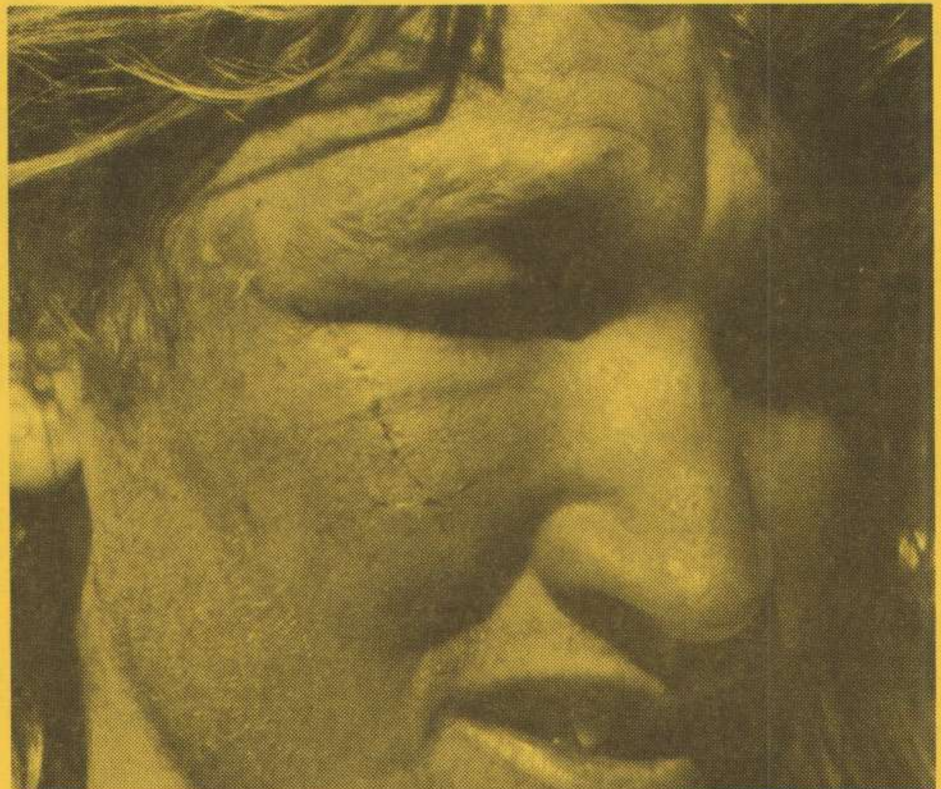
DISCUSSION

There is a lot to be learned from this case. The most important point is that in an injury such as this, the outcome is very much dependent on geting state-of-the-art care by the appropriate specialists. This care can be hard to find — even a locally well-connected MD like Mark had some difficulty arranging things. A surfer who simply shows up at the emergency room with an injury may have to take potluck and is at risk of being treated by physicians (and even medical students) with less-than-optimal skills and knowledge.

As a medical student, I knew that I needed a plastic surgeon and had some idea of how the system worked. Even so, without Mark's help and connections there would have been much more hassle and delay, and I might not have gotten the excellent care that I did. Imagine the predicament of an injured surfer without connections or knowledge of how the system works.

SMA health professionals have a vital role as health care facilitators for injured or sick surfers. Often this simply means providing an appropriate referral. In other cases, it may mean shepherding a surfer through the process and providing pertinent surf medicine information to caregivers. In all cases, it means letting local surfers know that you are available and taking an aggressive interest in following up on reports of surfers' injuries and illnesses (don't forget to send us your case reports).

Also important in this case are issues of surf injury prevention. This was a laceration from a very sharp fin. I had neglected to sand down the sharp trailing edges of the fins on this board, a measure



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which would have minimized the extent of the cut, perhaps avoiding some of the nerve and muscle damage. Fins come razor-sharp from the factory and should be sanded before the first go-out. There isn't any discernible effect on performance from sanded fins.

Also, in a bit of Monday-morning quarterbacking, members of the local surfing crew have pointed out to me that I tend to not get away from my board in wipe-outs. Although I've never had a significant collision with my board before, I'm taking their comments seriously and I'm consciously working at putting more distance between me and the board. I've also been making much more of an effort to protect my face and head in wipe-outs by curling up and covering my head with my arms.

Surfing to the point of exhaustion also played a role in this injury. While it is always hard to come in when the surf is still pumping, a drop in performance and alertness should prompt a return to the beach.

There are some special considerations in treating surfboard lacerations. Ross Rudolph, an SMA plastic surgeon, collected 39 case reports of surfboard lacerations from his fellow plastic surgeons in San Diego, California (soon to be published in "The Physician and Sportsmedicine"). He found that:

1. Lacerations were often deeper and involved more underlying structures than would be expected from the appearance of the wound at the surface. Ross suggests treating them like plate glass injuries, with thorough exploration of deep tissue.

2. When the injuring part of the board shatters or breaks on impact, there are often bits of fiberglass in the wound. Fiberglass fragments act as a particularly irritating foreign body and must be searched for in any surfboard laceration, especially if the board was damaged.

3. None of the 39 lacerations in the survey became infected, even though only 23% of the patients received antibiotics. This may simply be a reflection of excellent wound care by this group of plastic surgeons, but it does imply that not every surfer with a laceration needs antibiotics.

In this case, the injury occurred near a major medical center and the only interim measures needed were direct pressure to control bleeding and a clean dressing to avoid further contamination of the wound. The obvious question that arises is: what do you do with a laceration like this when you're out in the middle of nowhere, surfing some reef far from an operating room? A surfer with a wound that requires more than simple closure (i.e., lacerations involving possible damage to nerves, muscles, tendons or other structures below the skin; or where a specialist's skills are needed to achieve an optimum cosmetic/functional result) should be transported ASAP to a facility where a proper repair can be done. Often this means getting on the next plane for home. In the meantime, the wound should be thoroughly irrigated and any foreign material picked out. If the wound appears clean, has no devitalized (dead) tissue, and the proper skills and material are available, then the skin can be closed with a single layer of sutures — later, the surgeon can easily open it up again for definitive repair. If the wound is contaminated or contains dead tissue, leave it open, packing it with wetted gauze and covering with a loose dressing. When in doubt, leave it open and pack it. Antibiotics should be given in these cases — a first-generation cephalosporin like Keflex® (cephalexin) or a Velocef® (cephradine) is best. Septra® (trimethoprim/sulfa) can be used in a pinch.

Finally, all surfers with a healing cut should be advised to avoid sun exposure to the area. UV light stimulates melanin (pigment) production in healing tissue and can result in increased, darkened scarring. Cover it up if you can -- at the very least, use a high sun protection factor, waterproof sunscreen.

The other reason to come to Fiji

A MEDICAL SURF EXPERIENCE AT GRAJAGAN, JAVA, INDONESIA JULY-AUGUST 1987

By Joel Steinman, MD

Joel Steinman, MD, is a surfer and general practitioner from Brazil. He was way ahead of the rest of us surf docs, having done this survey of medical problems at Grajagan back when the SMA was in its infancy. The amazing Dr. Steinman sent this to us out of the blue and then disappeared — last heard of in China. Although his native language is Portuguese, he was kind enough to send us his report in English; we've edited it only slightly to preserve the original flavor. — KS

It was my first trip to Indonesia. The waves in Uluwatu and Padang were so perfect and the news coming from G-land was incredible.

I was worried at this moment about the other side of the facts at the Ecological Surf Reserve — the absence of medical care.

After contact with Mr. Bambang and Mr. Bob, responsible for organization and operation of the two surf camps at Grajagan, my desire to give medical care to the surfers at the spot was positively accepted.

I used to travel with my medical equipment, but the medical material organization for two months in the jungle was a little bit difficult due to the absence of any medical support and any medicine at the surf spot. This required a major sensibilization and conscientization of the organizers.

The medical surf histories I collected from G-land oriented me in the direction of surgical accidents due to the powerful, perfect waves and the sharp reefs. Besides the big surf conditions, the factor of malaria, the inexistence of an effective emergency transport program (the nearest medical doctor can be found between 8 hours and some days), and the short age of many surfers confirmed the necessity of medical care.

During the 8 weeks (July and August 1987), the surf was fantastic. With a surf population of about 50 surfers, which changed almost every week, the summary of my medical activities was as follows:

1) 9 cases of surf accidents requiring stitches. (2 of them presented relative gravity: a plastic lip reconstruction and a perforation of the gluteus maximus muscle.)
2) 6 cases of skin infection due to accidents with the coral.
3) 3 cases of acute otitis medica.
4) 3 cases of deep skin penetration by "hedge hog".
5) 3 cases of acute diarrhea.
6) 1 case of urinary tract infection.
7) 4 cases of important muscle trauma.
8) 1 case of gastric irritation by prophylactic malaria prevention therapy.

At Grajagan, southeast Java, we can find the anopheles mosquito, transmittor of malaria. The prevalence of infection there is unknown due to a lack of medical statistics. Cases are related year-round, making obligatory the prophylactic supressive theory with chloroquine.

The medical supply (syringe, needles, surgical gloves, antiseptic, mononylon suture, antibiotics, compresses, etc.) weren't insufficient due to the spirit of collaboration between the surfers at G-land, allowing all medical activities and a great surf time.

Before your next trip to G-land, prepare well your surf equipment for the magic waves of the jungle and don't forget your medical first aid stuff due to the absence of permanent medical assistance at the spot.

Nelson Swartley at Grajagan

☆☆ ORIGINAL RESEARCH ☆☆

THE NORTH COAST STUDY: A SPUTUM CYTOLOGY EVALUATION OF MARIJUANA-SMOKING SURFERS

by Kevin Starr, MD and Mark Renneker, MD

INTRODUCTION

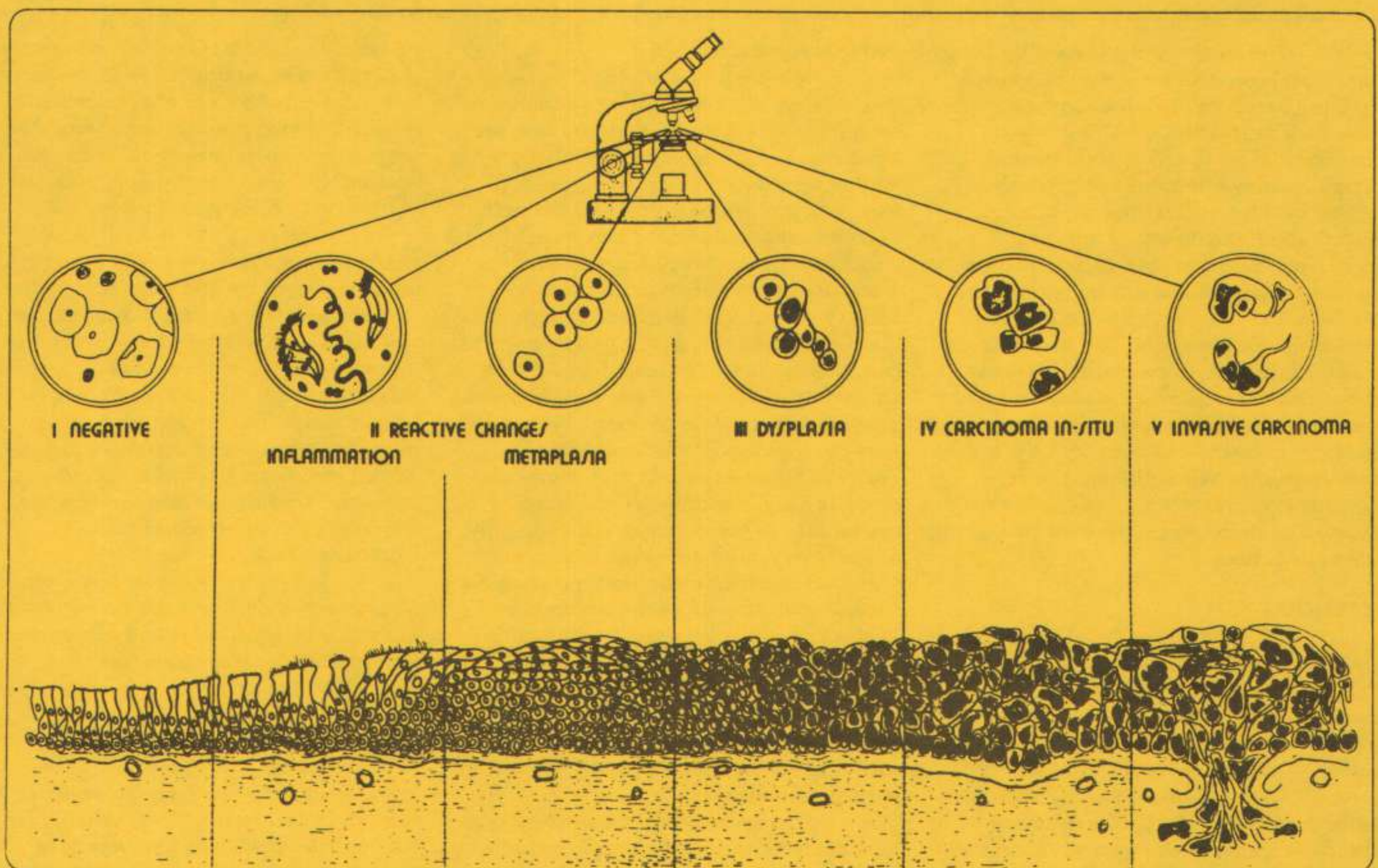
Surfers are among the fittest of athletes (Lowdon 1980) and are generally very health conscious. Few surfers smoke tobacco; however, marijuana use is common in this group, with a prevalence estimated at 60 - 90% (Renneker 1987). Smoking marijuana may seem at odds with the cardiopulmonary demands of surfing, but many surfers view marijuana as essential to their personal and social well being.

The Surfer's Medical Association (SMA) is an international organization of surfing health professionals and health-concerned surfers. The goal of the SMA is to help surfers become healthier. The possibility, then, of lung damage due to marijuana use is of special interest to the SMA.

Medical research suggests that marijuana smoking may have lung effects similar to cigarette smoking. With the exception of nicotine, marijuana smoke contains virtually all of the cancer-causing (carcinogenic) and lung irritant compounds of tobacco smoke, in addition to 60 possibly harmful compounds not found in tobacco (Hoffman, 1975). Lung air flow studies of heavy marijuana smokers found adverse effects on large airway function (Tashkin 1973, 1987), and marijuana smokers have been shown to have a higher prevalence of acute and chronic respiratory symptoms such as coughing, wheezing, and sputum production (Tashkin 1987).

Recent studies have revealed pathologic microscopic changes in the airways of heavy marijuana smokers (Barbers, 1987; Gong, 1987). These changes are similar, though not identical, to those seen in tobacco smokers. The methods used in these studies were invasive and potentially harmful to subjects, including bronchoscopy (putting a fiberoptic tube down into the lung) and bronchoalveolar lavage (retrieving cells by washing small amounts of fluid into the lungs).

Sputum cytology — examining cells coughed up from the airways — offers an opportunity to investigate changes from marijuana smoking without using cumbersome, invasive methods. Sputum cytology has been used extensively to assess the lung health of cigarette smokers (Sorenson 1987). LungCheck, a Northern California firm specializing in sputum cytology, has developed a system where subjects can simply cough up sputum into a specially designed container, which is then mailed to the LungCheck laboratory for analysis.



The development of lung cancer

RESPIRATORY COMPONENTS

1. **Macrophages (Total)** — Macrophage means "big eater". They are giant "white blood cells" that are an important part of your body's immune system. They are capable of identifying foreign substances that have invaded the body and can literally eat them by pulling the matter into their cytoplasm (the jelly-like fluid within the cell membrane). Total pulmonary macrophages (both non-pigmented and pigmented) are quantitated. They increase in number in response to the irritating effect of cigarette smoke inhalation.

2. **Macrophages (Pigmented)** — Macrophages ingest carbon pigment and other particulate material found in cigarette smoke. The density of pigment contained in macrophages is assessed, which reflects the dose response to cigarette smoke inhalation.

3. **Neutrophils** — the toxic effect of cigarette smoke stimulates the production of an increased number of small white blood cells called neutrophils. They release elastase, an enzyme that dissolves the biologic "glue" that holds our cells together. When elastase is secreted in the lungs, healthy lung tissue becomes damaged, leading to emphysema.

4. **Mucus** — In response to the effect of cigarette smoke, the cells (lining the airways) that produce mucus begin to multiply. As a result, an over-production of mucus begins to clog the airways.

5. **Curschmann Spirals** — The overproduction of mucus will eventually accumulate in the small air passages leading to the airsacs. As the mucus stagnates, "rubbery" casts of coiled mucus are formed and are usually dislodged during the process of producing a coughed sputum specimen. They are identified in approximately 90% of sputum samples among cigarette smokers.

6. **Columnar Cells** — As the toxins from cigarette smoke irritate the lungs, the usual rigidly anchored columnar cells (normal cells that line the airways) begin to lose their ability to adhere to the surface. The presence of these columnar cells in sputum reveal chronic lung irritation.

7. **Metaplastic Cells** — When the toxic effect of cigarette smoke continues to irritate the lining of the lungs over a period of time, columnar cells begin to transform themselves into layered "scale-like" metaplastic cells. Such changes may eventually regress to relatively normal epithelium following smoking cessation.

8. **Dysplastic Cells** — Dysplastic cells are potentially premalignant, arising from abnormal changes within metaplastic cells due to prolonged carcinogenic irritation in the lungs. These cells may likewise reverse to healthier tissue after smoking cessation.

9. **Bronchial Hyperplasia** — Substances which irritate the airways cause a proliferation of the cells lining the airways and a thickening of the airway walls.

10. **Intrepithelial Neutrophils** — These neutrophils are actually inside lining cells of the airways. These odd cells-within-a-cell are of unknown significance, but are associated with cancerous and infectious states.

11. **Eosinophils** — These are a type of white blood cells associated with allergic responses. Their function is not known.

12. **Reactive Columnar cells** — These are normally functioning columnar cells which show changes in their nuclei. In cigarette smokers, they are believed to be a part of an allergic response to the smoke.

The methods developed by Lung Check presented an ideal way to examine the lung health of marijuana-smoking surfers. The "North Coast Study" was conceived of by the SMA : (1) to study the pulmonary effects of heavy marijuana use on healthy surfers, and (2) to educate surfers about the effects of smoking marijuana. Because SMA members form an integral part of the surfing community, the SMA was uniquely capable of recruiting surfers for the study. The surfers in this study live in remote coastal areas, many of them well out of the mainstream of society and even outside the law. Through personal contact, SMA members were able to enlist surfers who otherwise have virtually no contact with medical institutions. The study was supported by a grant from LungCheck.

METHODS

25 male surfers from Mendocino and Humboldt counties in California (the "North Coast") and the North Shore of Oahu in Hawaii were studied. These are all rural areas with high concentrations of surfers. Criteria for inclusion in the study were (1) smoking marijuana regularly for more than two years, (2) no recent or chronic respiratory or systemic disease, (3) no other drug or toxic industrial exposure, (4) currently living outside an urban area, and (5) no tobacco use.

Each surfer completed a questionnaire on smoking history, respiratory health, marijuana and other drug use, and toxic exposures (including Paraquat). Surfers were given LungCheck canisters (containing ethylene glycol and rifampin as fixatives) to take home and were instructed on how to produce specimens. After three consecutive morning collections (when sputum is easiest to produce), the canisters were mailed by the surfers to LungCheck. Most of the surfers desired anonymity — some of them are marijuana growers, others were concerned about possible investigation by authorities. Trusted SMA members in each study area acted as local coordinators, maintaining master lists of subjects and assigning only a number - not a name - for processing.

The specimens were processed at LungCheck's labs using the Saccomano method (material is mixed, centrifuged, and stained with a modified Papanicolaou technique). Various components of the specimens were quantitatively analyzed, giving relative levels of each component on a 0 to 10 scale (zero = none present, 10 = maximum number).

Components of sputum analyzed quantitatively included (see accompanying inset for explanation of components): macrophages, pigmented macrophages, neutrophils, mucus, Curshmann's spirals, columnar cells, and metaplastic columnar cells. Specimens were also examined qualitatively for presence or absence of: dysplastic cells, intraepithelial neutrophils, eosinophils, reactive columnar cells, and benign bronchial hyperplasia.

The results from marijuana smokers were compared with those of male non-smokers and tobacco smokers of similar ages. These comparison groups were drawn from LungCheck's data base of tested subjects; the non-smoking group was composed of Mormons from suburban Silicon Valley and the smoking group members were from throughout the Bay Area. Specimens from all three groups were analyzed by the same cytologists, who were not informed of subjects' marijuana or tobacco use.

All participating surfers were sent a summary of their test results. Counseling and education regarding results were provided by local coordinators after training by the authors.

RESULTS

In the study group of 25 marijuana-smoking surfers, the average age was 27.5 years (range 17-38 years). They had smoked marijuana an average of 5.75 days per week with a mean of 25 "hits" (deep, long inhalations) per day smoked.

(continued on page 19)

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NERD

Shoulder–Hopper

SMA out of the water...

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E.N.T.(2)
Ecology
Electrician
Emergency Medical Services
Emergency Medicine(14)
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Engineering
Exercise Physiology
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Furniture Design
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Geology
Grocery Retailing
Gynecology(2)

Healer
Health Education
Health Worker
Hematology
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Horse Doctor
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Internal Medicine(12)
Journalism
Law
Leather Work ("Cow Hide")/ writer
Librarian
Lifeguard
Loan Agent
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Marine Biology
Marine Envenomation
Massage
Mathematics
Mathematics and Methodologies
Media
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Medical Social Worker
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Nephrology
Neurology(4)
Neurosurgery
Nutrition
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Oceanography
Oncology
Ophthalmology(6)
Optometry
Orthopedics(16)
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Pediatric Oncology
Pediatrics
Pharmacy
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Physical Therapy(12)
Physician's Assistant
Physiology

Plastic Surgery
Podiatry
Preventive Medicine and Public Health
Professional Skating
Professional Surfer
Professor of English, Retired
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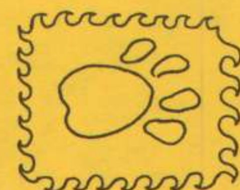
Telephone Repair
Travel Agent
Tropical Disease
Water Safety
Wilderness Medicine
Windshadow Sailing Charters (Galapagos)
Writer(7)



(continued from page 18)

Average age of the non-smokers was 25.9. The smoking group had a mean age of 29.8, consuming an average of 28 cigarettes daily over 13.5 years.

Results in the three groups are summarized in Table 1 and graphically displayed in Figures 2 and 3. Marijuana smokers showed significantly higher levels of all components compared to non-smokers. When compared to cigarette smokers, marijuana smokers showed higher levels of intraepithelial neutrophils (36% vs. 12%), eosinophils (56% vs. 36%), reactive columnar cells (20% vs. 12%), and benign bronchial hyperplasia (24% vs. 8%). Marijuana smokers had significantly lower levels of neutrophils (5.4 vs. 6.4; $p < 0.0052$) and pigmented macrophages (4.9 vs. 6.1; $p < 0.0003$) than cigarette smokers.

There were 2 cases of dysplasia among the 25 cigarette smokers and 1 among the 25 marijuana smokers. In all three cases, the degree of dysplasia was rated as mild (in a continuum of mild - moderate-severe, with carcinoma-in-situ as the next stage beyond severe dysplasia). Dysplasia was not seen in the nonsmokers.

TABLE ONE

RELATIVE LEVELS OF QUANTITATED SPUTUM CYTOLOGY COMPONENTS IN THE THREE GROUPS TESTED.

	Marijuana Smokers N=25	Tobacco Smokers N=25	Nonsmokers N=25
Macrophages	5.8	5.4	4.0
Pigmented Macs.	4.9	6.1	3.8
Neutrophils	5.4	6.4	3.8
Mucus	4.4	5.2	3.1
C. Spirals	1.0	1.3	0
Columnar Cells	6.0	5.6	2.2
Metaplasia	4.4	5.1	1.2

* Values in each case are averages from among the 25 subjects in each of the three groups.

TABLE TWO

PERCENTAGES OF SUBJECTS IN EACH OF THE THREE GROUPS TESTED DEMONSTRATING PRESENCE OF NON-QUANTITATED COMPONENTS OF SPUTUM.

	Percentage of Total		
	Marijuana Smokers N=25	Tobacco Smokers N=25	Nonsmokers N=25
Dysplasia	4	12	0
Intraep. Neutros.	36	12	0
Eosinophils	56	36	24
React. Col. Cells	20	12	0
Bronch. Hyperplasia	24	8	12

DISCUSSION

Sputum cytology changes in long-term cigarette smokers are well documented (Saccomano 1982). There is a progression of cellular changes over 20 to 30 years in which healthy cells are gradually transformed into abnormal cells that may become cancerous (see figure 1).

The lung's first response to cigarette smoke begins with the proliferation and thickening of surface tissue in the airways (hyperplasia). As the irritation worsens, small areas of glandular, delicate columnar cells transform into patches of scaly, toughened squamous cells (metaplasia). Further irritation may cause these cells to become precancerous (dysplasia). Dysplasia can evolve over a period of years to cancer. All of these stages are accompanied by increased levels of inflammatory cells (macrophages, neutrophils) and other sputum components associated with chronic irritation (mucus, Curshmann's spirals).

Up to the point of development of malignant cells, this process is potentially reversible. In cigarette smokers, damaged lung tissue can revert to normal within five years of quitting smoking (Auer 1982).

Sputum cytology methods can demonstrate irritative and precancerous changes in the lungs of cigarette smokers and are capable of detecting lung cancer at an early stage (Frost 1986, Greenberg 1986, Saccomano 1982), but it remains controversial whether sputum cytology is sensitive enough to be a useful screening device for lung cancer. While a sputum sample can give a good idea of overall lung health, it may miss existing cancer cells. However, the Japanese government has carried out large-scale lung cancer screening programs combining sputum cytology and chest X-rays (Naruke 1980). In 1988, Japan began a national lung cancer screening program for smokers over 50 using this combined approach.

FIGURE 2: Quantitated sputum components compared

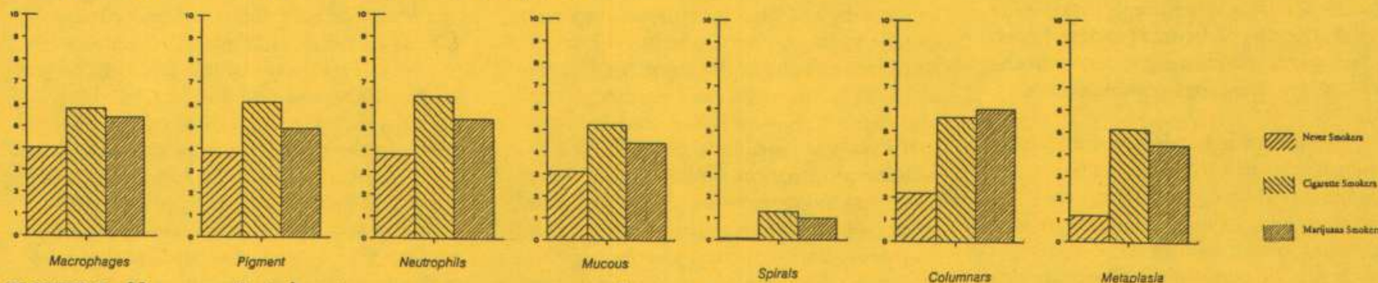
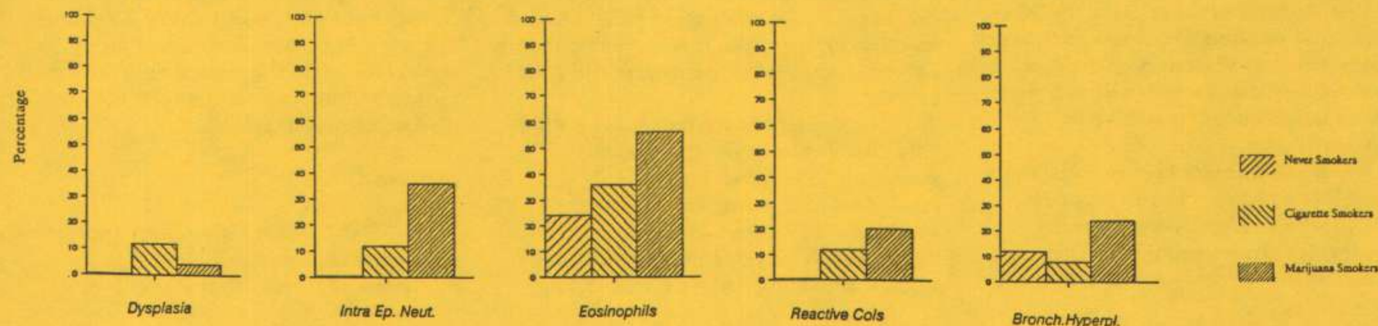


FIGURE 3: Non-quantitated sputum components compared



In our study of heavy-use marijuana-smoking surfers, cytologic changes roughly paralleled those seen in cigarette smokers. In every component analyzed, except bronchial hyperplasia, marijuana smokers more closely resembled cigarette smokers than nonsmokers. The pathologic effects of cigarette smoking on the lungs are documented beyond controversy, making this an ominous finding.

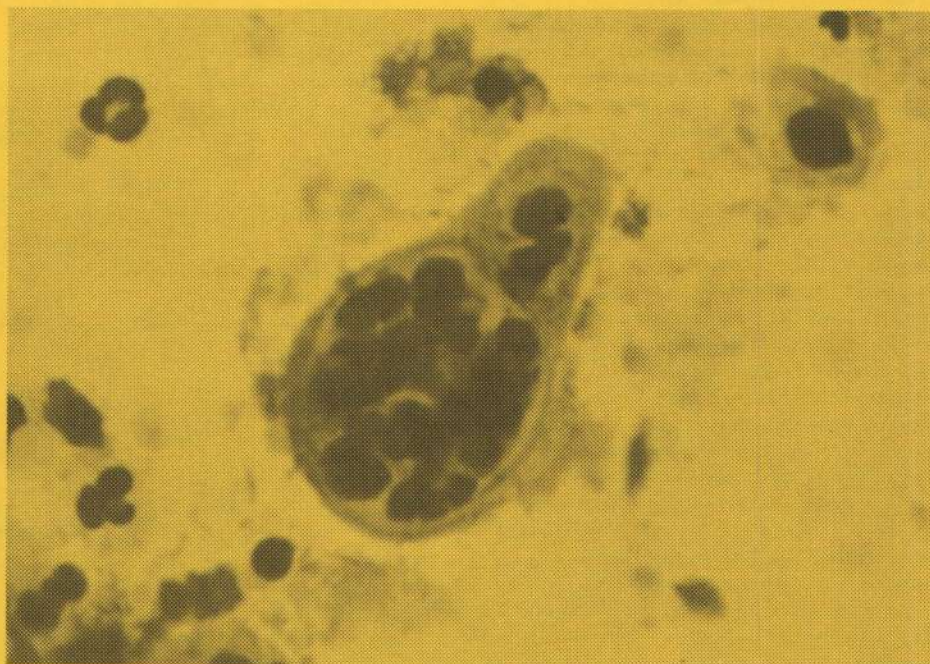
There were some interesting differences between the marijuana smokers and nonsmokers. Most striking were the significantly larger percentages of marijuana smokers demonstrating eosinophils and reactive columnar cells. These cells tend to be seen when there is an allergic or asthmatic component to the bronchial irritant response (Tina Roby, personal communication, 1988). Cigarette smoking is commonly implicated as a factor in respiratory allergies and asthma. The appearance of higher levels of these cells may indicate that marijuana smoke incites even more of an allergic response.

In Northern California, marijuana is typically grown without use of pesticides and is processed by air drying without any chemical treatment (K. Starr, informal survey of Mendocino marijuana growers, unpublished, 1988). It is smoked using pipes or standard cigarette papers (as "joints"). The higher levels of eosinophils and reactive columnar cells could be a reflection of the more harsh quality of unfiltered marijuana smoke. They may also be caused by agent(s) intrinsic to marijuana smoke. Tetrahydrocannabinol (THC), the main psychoactive component of marijuana smoke, has been shown to act as an airway irritant (Tashkin 1987).

Intraepithelial neutrophils were first observed by LungCheck cytologists in sputum samples from marijuana smokers; only later were they found in cigarette smokers. Their significance is unknown; however, they have been associated with neoplastic and infectious processes in the lung (T. Roby, personal communication, 1988).

The lower levels of neutrophils and pigmented macrophages in the marijuana smokers have no obvious explanation and, in fact, earlier bronchoalveolar lavage studies have shown higher levels of neutrophils (Barbers 1986). It is probably more significant to note that for both of these cells, the levels in marijuana smokers are closer to those of cigarette smokers than to nonsmokers. It seems unlikely that there is a significantly different inflammatory response to marijuana smoke.

Marijuana smokers showed the highest levels of bronchial hyperplasia, with cigarette smokers demonstrating lower levels than nonsmokers. The reasons for this are unclear. It may be that in this group of long-time cigarette smokers much of the susceptible airway cell layer has progressed beyond the initial stages of hyperplasia. This is given some support by the highest levels of metaplasia occurring in the cigarette group.



Neutrophils inside epithelial cell

Marijuana smokers and cigarette smokers showed similar levels of metaplasia and dysplasia, supporting the idea that the airways of marijuana smokers go through a progression of pathologic changes similar to those of cigarette smokers. The degree of dysplasia in all three cases was rated as mild, a finding that is still of some concern. It has been shown that about 15% of cigarette smokers with moderate dysplasia progress on to lung cancer (Greenberg 1986).

While showing cytologic changes in the lungs of heavy marijuana smokers similar to those seen in heavy cigarette smokers, our study does not demonstrate a causal relationship between marijuana and cancer. However, our results imply that smoking marijuana can lead to a cellular progression similar to that observed in cigarette smokers. Because tobacco is a known cause of lung cancer, it appears likely that the changes seen in marijuana smokers may progress to cancer as well. Generally, the progression to cancer occurs over a period of 20 years or more and it may take that long to establish a direct causal role for marijuana in lung cancer.

Our study shows similar pathologic changes in marijuana smokers averaging 25 hits per day (roughly equivalent to 2 joints) and cigarette smokers with a mean of 28 cigarettes daily. This is in agreement with earlier studies estimating that, in terms of lung damage, one joint equals about one pack (20) of cigarettes (Powell, 1987)

There are a number of reasons why marijuana smoke appears to be more potent than tobacco smoke. Marijuana smoke is unfiltered and contains more tar than cigarette smoke. In a joint, it is smoked down to the last bit (the roach), where tars and resins are concentrated. It is inhaled more deeply and is also held in the lungs longer. There are carcinogenic substances such as benzopyrene which are actually more abundant in marijuana smoke. (Powell 1987)

Medical literature suggests that episodic use of marijuana is "not obviously damaging to the lungs" (Vachon 1976). Virtually all studies, like this one, have focused on heavy smokers. Further study is needed to investigate the pulmonary effects of occasional use of marijuana.

Follow-up of the far-flung surfers in the study was difficult, but informal surveys indicated that most of the participants in the study subsequently decreased their marijuana use. The local coordinator for the Mendocino group provided an initial report from 6 marijuana-smoking surfers who were tested and received subsequent counseling regarding their results: 3 quit smoking marijuana, 2 cut down about 50%, and 1 made no change.

Further studies in this group should focus on the educational impact of testing and its long-term effects on marijuana-smoking habits.

SUMMARY

The North Coast Study represents the first sputum cytology investigation of marijuana smokers. In this group of 25

otherwise healthy, athletic marijuana smokers living in an unpolluted environment, cytologic lung changes were seen similar to those observed in a group of urban cigarette smokers. This suggests that heavy marijuana smoking may be as damaging to the lungs as smoking tobacco.

Sputum cytology appears to be a useful method for studying pulmonary effects of smoking marijuana. It is noninvasive, and poses no potential harm to subjects. Because of the relatively easy method of specimen collection, there is the potential for longitudinal, large-scale studies.

In our study, conclusions are limited primarily by a small sample size and by the vagaries of self-reported smoking histories. There is no standardization of marijuana dosage (earlier studies have used terms like "joint-years") and variability of subject recall can be great. For this reason, no attempt was made to correlate dosages with cytologic findings.

Larger scale studies are needed to confirm the findings in this pilot study, to explore the significance of new observations such as intraepithelial neutrophils, and to attempt a correlation of dosages over time with cytologic findings.

The North Coast Study was possible because of the integral role of the Surfer's Medical Association in the surfing community. Grass-roots medical organizations such as the SMA open up vast possibilities for education and research within the communities they serve.

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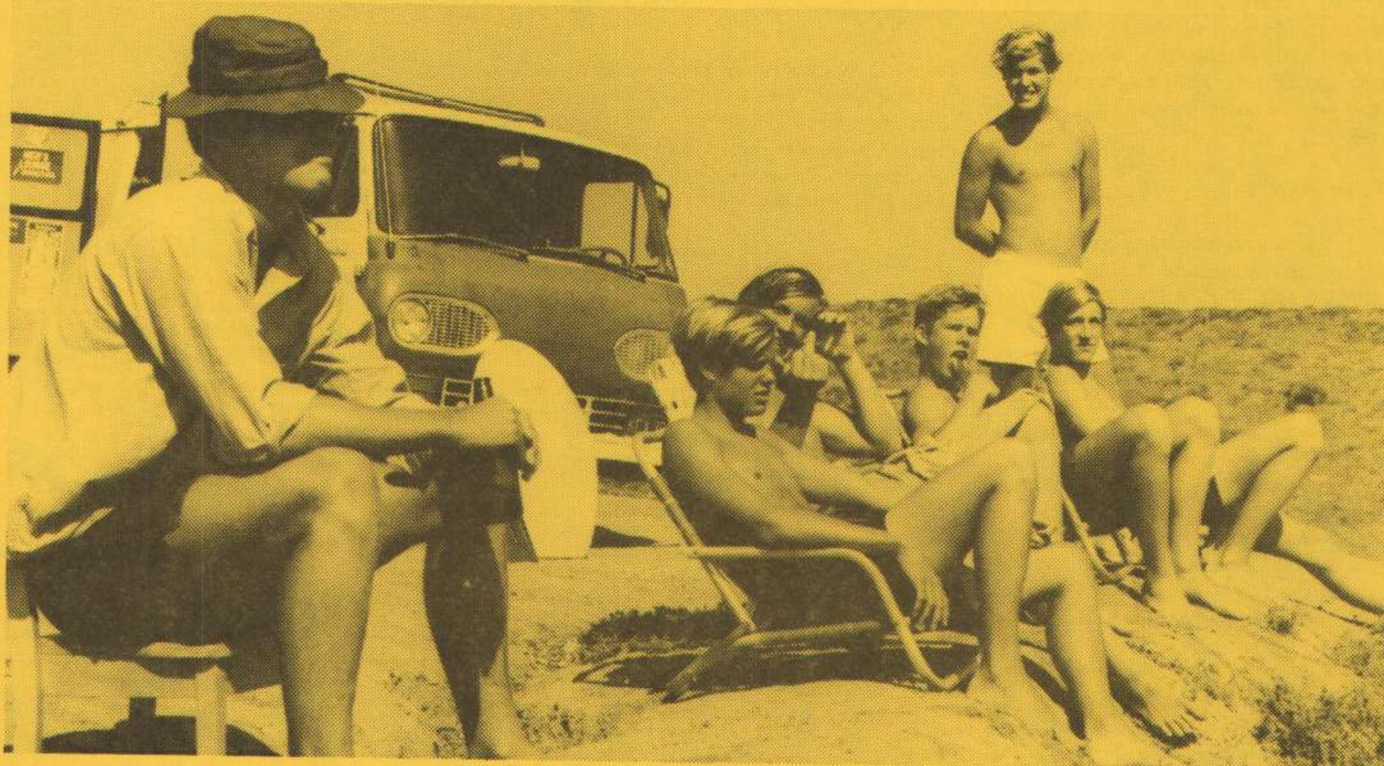

Is marijuana smoking harmful in surfers?

SURFBOARD RIDERS' CHRONIC ILLNESS/INJURY AND RESULTANT DISABILITY STUDY

By Dr. G.C. Booth, MB, DPRM, FACRM, FACOM, FAASM
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INTRODUCTION

A number of factors have evolved, especially over the past ten years, to promote participation in the sport of surfboard riding in Australia. At the same time, surfing lifestyle risk factors as well as risk factors associated with injuries and illness in surfboard riding are becoming documented in greater and more scientific detail (Lowdon 1983, 1984; Renneker 1987).

This is opening up exciting possibilities in terms of primary, secondary and tertiary prevention (Bradley 1987; Sheehy 1983; Booth 1987; Ambrose 1986; Lowdon 1982; McCrerey 1987). By these dual axes of participation enhancement and risk identification (and therefore risk minimization via prevention strategies), participation in the sport/lifestyle of surfboard riding can be maximized. This paper presents an original study on chronic illness/injury and resultant disability amongst surfboard riders.

This is a retrospective descriptive study, using a questionnaire format. The questionnaire appeared in a surfing publication (*TRACKS*). *TRACKS* is a monthly surfing magazine and is the most widely read surfing publication in Australia, with an estimated readership well in excess of 120,000/issue (ref: *TRACKS*). For the past 9-1/2 years, *TRACKS* has featured a Health Advice Section under the title "DR. GEOFF."

METHODOLOGY

The questionnaire, together with a half page article entitled "CHRONIC DISABILITY AND THE ART OF SURFING" appeared in the Dr. Geoff section of the March 1987 issue of *TRACKS*. Readers were invited to fill in the questionnaire and return it to *TRACKS* post office box address. 42 major questions (41 of which contained additional sub-questions) were used to explore surfboard riding and disability in terms of:

- Basic demographic information
- Nature of illness/injury causing disability
- Nature of the disabilities
- Effects of disabilities
- Psychological responses at the time of injury/illness
- Outcomes in terms of psycho logical, financial, lifestyle changes and surboard riding status.

John Przybyszewski leaving the water after his first-ever surf session

RESULTS

A total of 70 questionnaires were returned over the next 6 months (to the end of September 1987). The first 50 of these have been analyzed for the purposes of this presentation. In addition, four case examples are presented.

1. Sex: 47 males; 3 females

2. Age Range: Youngest respondent was a female with scoliosis aged somewhere between 10 and 15 years; oldest was a male between 41 and 45 with chronic back pain.

3. Peak Age Range of Disability: 26-35 years

4. Nature Of Impairments Leading to Disability N=50

- Back disorders: 15 (30%)
- Knee disorders: 8 (16%)
- Shoulder disorders: 5 (10%)
- Ear disorders: 5 (10%)
- Ankle disorders: 3 (6%)
- Skin disorders: 3 (6%)
- Leg amputations: 2 (4%)

Other disorders associated with surfboard riding included:

- Arthritis
- Asthma
- Brachial plexus injury
- Haemophilia
- Head injury
- Hypertrophic cardiomyopathy
- "Nervous breakdown"
- Pelvic infection
- Stress fracture of pelvis

5. Nature of Disabilities

The major disabilities that interfered with surfboard riding performance or caused surfboard riding handicap included:

MAJOR DISABLILTY (ranked)

- Pain (17)
- Can't stand on legs properly (11)
- Can't move arms/legs properly (5)
- Doc won't let me (4)

SECOND DISABILITY (ranked)

- Pain (10)
- Can't stand on legs properly (8)
- Joints too stiff (6)
- Doc wont't let me (5)

6. **Effects Of Disabililties**

Time unable to surf ranged from "never stopped surfing" (hypertrophic cardiomyopathy -- a heart problem) to a 3 year period (leg amputation). Mean time of disability which prevented surfboard riding varied with the nature of the underlying illness or injury:

- Back disorders: mean time 4-6 months
- Knee injuries: mean time 10-12 months
- Shoulder injuries: mean time 7-9 months
- Ankle injuries: mean time about 3 months
- Ear disorders: mean time 6 months

Interesting single cases included a person with brain injury who took between 4 and 6 months to return to surfing, a person with a "nervous break-down" who took 13-24 months, and a person with a brachial plexus (nerve) lesion who also took between 13 and 24 months before being able to return to surfing.

7. **Psychological Responses**

Only two surfers stated they were not affected psychologically. Both of these people were able to return to surfing. Three respondents did not answer this question: one of these did not return to surfing and the other two did.

Of the remaining 45 respondents who were affected psychologically at some stage, feelings most commonly exppressed were:

- Depression (20)
- Anxiety (17)
- Anger (9)
- Scared (6)
- "Why me" (6)
- Sadness (3)

(Note that respondents were asked to tick no more than two responses to this question)

8. **Outcomes**

Psychological

At the time of response to the survey, 45 participants said they were on top of things psychologically. Five of these had not returned to surfboard riding. Four said they were not on top of things psychologically (3 males, 1 female) but all of this group returned to surfing. One person did not answer this question. Sources of assistance in getting back on top of things included:

- Doctors (14)
- "Surfing Mates" (13)
- "Reading" (13)
- "Family"/"people with similar problems" (8)

(Respondents were asked to tick no more than 3 responses to this question).

A large number of different interests were cited as a means of coping with disability. However, the major interests were as follows (in ranked order):

- Sport (7)
- Higher education (college and univer sity) (6)
- Music (5)
- Hobbies (both surf-related and non surf-related) (3)

Unique methods included yoga, Pritiken diet, resting, learning about the body, religion, and watching television.

Financial

Income sources included the following:

- Most surfers were working (35/50) However, incomes were mostly in the range of $10,000 — $15,000 per year
- 7 were in receipt of Social Security benefits (Unemployment Benefit 5/50, Sickness Benefit 1/50 and Invalid Pension 1/50)
- 4 were not working but were not in receipt of the dole
- 2 were in receipt of Workers' Compensation payments.
- 2 did not respond to this question.

Surfboard Riding Status

Following onset of chronic illness or injury, 45 of the 50 respondents stated they were ultimately able to return to surfing; 42 were males and 3 were females. Of the 45 disabled surfers who returned to surfing, 37/45 (36 males and 1 female) returned to the same type of surfing as that which pre-dated their disability. 8/45 (6 males and 2 females) returned to a different type of surfing.

Of the 6 males, 1 changed from surfboard riding to a malibu [a "malibu" is a long-board in Australia] , 1 changed from surf-board riding to windsurfing, and 3 did not state what they had changed to. 1 changed from riding a surf ski to a surfboard. Of the 2 females, 1 changed from surfboard riding to a malibu, and the other changed from boogie board riding to a malibu.

5 respondents did not return to surfing; 3 of these to date have been unable to find a satisfying alternative to surfing. These 3 persons suffered knee, ear and shoulder disorders respectively. The other 2 were able to find a satisfying alternative to surfing. In one case (skin cancer), religion and study at a university were stated to be the satisfying alternatives. In the other case (double amputee), photography was stated to be a satisfying alternative.

9. **Case Examples**

Back Problem

One of the respondents, a male aged between 31 and 35 years from South Australia has been a surboard rider for between 16 and 20 years. He earns between $10,000 and $15,000 per annum. He is now back into surfboard riding but was disabled for between 4 and 6 months because of pain and inability to stand on his legs properly. At the beginning of his back disorder he was very anxious. Eventually he was able to get back on top of things with help from his surfing mates, family, and physical activities (walking). Back stiffness was a problem when he first returned to surfing. Changes of technique (less twisting of the pelvis, i.e., less body torque) and changes in equipment (longer, straighter surfboard) finally enabled him to readjust to surfboard riding. It took him somewhere between 1 and 3 months.

This particular person found his previous surfing experience to be helpful. Because he is an eternal optimist, he never considered being unable to surf. He is not aware of anyone else who cannot surf because of disease or injury.

Brachial Plexus Injury

This is a male aged between 36 and 40 years from New South Wales. He is currently working and earning between $10,000 and $15,000 per year. His accident caused a drop in income of between $5,000 and $10,000 per year. He has been surfing for over 20 years.

It took him between 1 and 2 years to get back into surfing. HIs major disabilities were weakness and inability to use the injured arm properly.

At first, he was depressed, and asked himself "Why me?". However, he is now on top of things emotionally, thanks to being in contact "with people suffering similar problems," physiotherapy, and "3,000 hours of swimming."

He first used a malibu when he returned to surfing. This helped him develop muscles in his injured (left) arm until he was finally able to paddle a shorter board. He now uses a webbed glove on his left hand for more paddling power.

Once he was back in the water, it took him between 7 and 12 months of perseverance berore he was finally able to return to surfboard riding. During his convalescence he never considered being unable to surf again.

Leg Amputation

Both examples are male. The first, a Queenslander aged between 26 and 30 years, lost both of his legs. He had been a kneeboard rider for 11-15 years. At the time of the survey, he was in receipt of Social Security Benefits. The

injury was responsible for a loss of income between $5,000 and $10,000 per year.

His inability to surf, due to this serious injury, has made him feel "angry" and left him "thinking mainly about the past." Nonetheless, he has taken up music and surf photography. He has found his past surfing experience helpful, particularly in the area of being "able to communicate."

The second is a male aged between 21 and 25 years from Victoria. He is a board rider of between 1 and 3 years, and lost one leg. He is working, earning between $20,000 and $30,000 per year. His leg amputation has not been responsible for any income loss. Psychologically, he felt "Why me?" at the beginning of his disability, but is now on top of things, even though it took him 3 years before he was able to return to surfing. The major disability that prevented him from returning to surfing was loss of balance.

With perseverance, he was able to return to surfboard riding. The only modification of equipment was the insertion of a zipper in the leg of his wetsuit which he described as "not essential but just easier." During his period of convalescence, he never considered being unable to return to surfing. His advice to others is "don't be a wimp; get out there and have a go."

Pelvic Infection

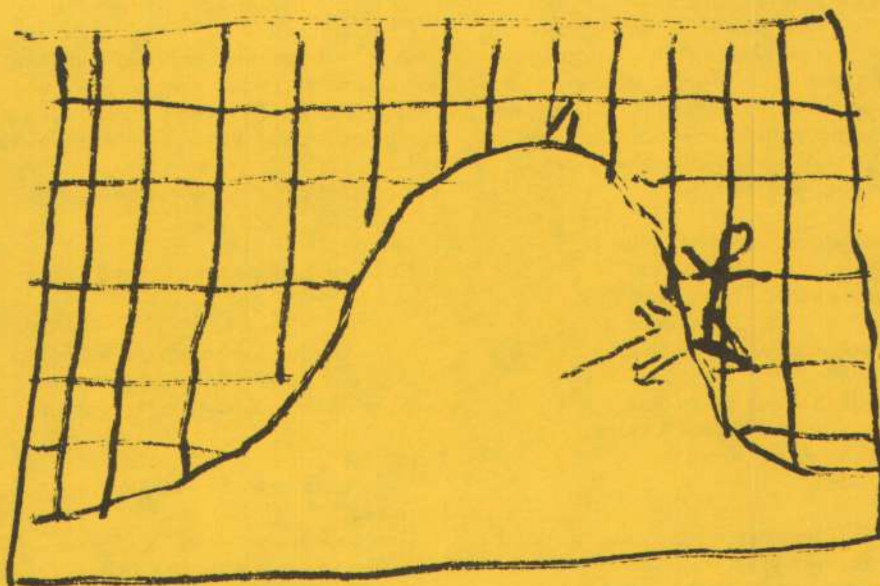
This is a female from Queensland aged between 16 and 20 years, who has been a surfboard rider for between 1 and 3 years. Because of pain and loss of balance consequent to pelvic infection, she was unable to surf for between 4 and 6 months. Being out of condition forced her to change from a surfboard to a malibu. It took her less than a month to make the transition. During her illness, she was never down psychologically, but always felt "happy to be alive." During convalescence, she never thought about not being able to surf again and found study in biology and chemistry to be a means of keeping herself mentally stimulated.

DISCUSSION

This survey, although small and retrospective, is nonetheless the first to address issues of chronic medical disorders and their effects on surfboard riding.

Musculo-skeletal disorders were the primary cause of disability preventing (temporarily or permanently) surfboard riding in this sample. They accounted for 34/50 (68%) of all respondents. Back disorders in particular accounted for 15/34 of this musculo-skeletal disorders group.

This finding raises some important issues. It has been suggested that



with the modern approach to surfboard riding (shorter board, much more body torque and more radical maneouvers) there has been an increase in back disorders amongst surfers. As yet, we do not have any direct scientific evidence to show this one way or the other.

Although the spine is reported in a number of retrospective studies (Estwanik 1978: Garrick 1978: Stanich 1969: Schnook 1979) as being involved in less than 10% of sports related musculo-skeletal injuries, there is a higher reported incidence in sports which have repetitive bending, high velocity twisting as their basis (Berson 1981: Ferguson 1974: Garrick 1978: Jackson 1980).

This indirect evidence lends some support to the above suggestion. At the same time, anecdotal evidence (Dr. V.A.E. Ghabrial 1987: personal communication: Increase in letters to Dr. Geoff, *TRACKS*) also lends further support to the suggestion of increase in back disorders amongst surfers. However, specific studies are required.

Many authors stress the importance of prevention of back disorders via warming up, stretching, and various strengthening exercises. Much more work needs to be done, however, in terms of looking at the specificity of these techniques for individual surfers.

National primary prevention strategies for the whole community in terms of back disorders need to be seriously addressed. However, targeting schools (especially primary schools) is probably going to be the most effective method of bringing about positive behavioral change in terms of back care. With the introduction of the Australian Schools Surfing Association (ASSA) we have an important educational medium readily available to specifically target surfers and introduce them to, amongst other things, measures aimed at preventing mechanical back strain.

Similar commments (regarding the importance of primary prevention at the level of the Australian Schools Surfing Association Programme) apply for other musculo-skeletal conditions (knee, ankle, shoulder, etc.) as well as problems of environmental exposure (e.g., the ear and skin) during the act of surfing.

Specific methods, devices, and educational information are available concerning prevention of ear and skin problems. For example, Doc's Pro-Plug, the use of high sun protection factor sunscreens, Lycra surfing shirts, and various articles by the Australian Cancer Council and Lowdon (1987). Booth has prepared guidelines for prevention of skin problems in surfing (Dr. Geoff, December 1983). Concepts and principles of injury prevention in surfing have also been outlined by Booth (Lowdon & Lowdon 1988).

The major ranked disabilities that interfered with or prevented surfing in this survey have included "Locomotor" and "Body Disposition Disabilities" (WHO Disease Classifications, ICDH, WHO 1980) as well as pain. These challenges need to be addressed from the medical (rehabilitation) point of view. Although primary prevention should be the aim, secondary and tertiary prevention via development of more suitable methods of pain management, use of more sophisticated orthoses and the use of equipment modifications/ variations (e.g., use of alternative wave-

riding crafts, such as malibus) will probably represent the most efficient methods of reducing disability.

The issue of "Doc won't let me" is also important. Surfboard riders insist on minimizing absolutely the amount of lost time from surfing. It behooves all health professionals and coaches treating surfers to be up to date in terms of management of surfing related disorders, especially where disability time is going to be significant.

Initially, 45/50 (90%) of respondents admitted to being affected psychologically by their "loss" of surfing participation. Depression and anxiety were the commonest expressed feelings at the onset of disability. By the time of the survey, 45/50 reported they were on top of things psychologically including the 5 respondents who had not returned to surfing. Why 4 respondents who were able to return to surfing were still not on top of things is not known.

It was interesting to note that sources of encouragement and information (doctors, surfing mates, family, and people with similar disabilities) were the major stated methods which respondents used in recovering their psychological well-being.

From the professional point of view, listening and the provision of information (both directly and via "hand-outs") have been found useful during the resolution of psychological distress that almost invariably accompanies significant disability. A combination of support from all health professionals, family, and friends is considered ideal as indicated by the findings of this survey.

A number of case examples have been presented to surfers via surfing magazines over the years (for example, *Surfer Magazine* 1988, *TRACKS* 1984, 1987). Such case examples are useful resources for those health professionals and coaches involved in treating injured surfers.

Contrary to popular belief, surfers responding to this survey were not over-represented as far as being in receipt of Unemployment Benefit is concerned. In fact, 10% were unemployed, a figure approximating that of the national rate of unemployment. Overall, 70% were still working, 8% were in receipt of disability or accident insurance via Sickness Benefit, Invalid Pension, and Workers' Compensation and 8% were neither working nor in receipt of Unemployment Benefit.

As a group, those respondents in employment appeared to have a relatively low mean income range ($10,000 to $15,000 per year).

Despite the nature and extent of disability, 90% of respondents returned to surfing. Of these, 82% ultimately returned to the same type of surfing predating their disability. The remaining 18% changed to other forms of surfing. Among these, malibus were the most useful and compatible with permanent disability. Interestingly, even among those who returned to surfboard riding, malibus were occasionally used as a transitory stage during the convalescent phase.

Malibus are longer and wider than modern surfboards. Flotation is greater, they paddle more easily and hence catch waves more readily and with less effort. They do not require as much forceful twisting body movement to drive them along the wave and are much more stable to ride. Malibus represent an ideal alternative stand-up wave-riding vehicle.

Of the 5 respondents who have not as yet returned to surfing, it is the author's opinion that 3 of those, suffering knee, ear, and shoulder disorders respectively, should ultimately be able to do so. The other 2 surfers (skin cancer and double amputation) indicated that although being unable to return to surfing they were able to at least find a satisfying alternative to surfing. This is heartening. Exact details, regarding each of these cases, are unknown. However, the author has a patient who is a double amputee who surfs using a boogie-board and who has also successfully ridden a surfboard.

In the case of skin cancer, a full range of protective Lycra surfing wear is now available. Such surfwear significantly cuts down ultra-violet exposure. Where water temperatures permit, use of suitable wetsuits also offer skin protection. Effective use of leashed hats and sunscreens may also permit a return to surfing.

By coincidence, at much the same time as this survey, an organization aimed at helping disabled surfers was founded. This organization, the Disabled Surfers' Association (DSA) has been described elsewhere (Booth 1987; Dr. Geoff, *TRACKS* 1987).

In 1986 the Surfers Medical Association (SMA) was founded (Dr. Geoff, *TRACKS* 1986; Renneker, 1987). One of the major objectives of the SMA is to get injured surfers back into the water as quickly as possible. The Handbook of Surf Medicine (in production) will present in A to Z format a full range of medical disorders both relating to surfing or impacting upon surfers. This book will act as a resource and stimulus for others to undertake detailed research into disability prevention/minimization and early return to surfing.

SUMMARY AND CONCLUSIONS

This retrospective survey has identified a group (70) of surfers who suffered a medical disorder which caused disability and prevented (temporarily or permanently) them from surfing. 50 of the respondents have so far been studied.

Medical problems involving the musculo-skeletal system (68%) and in particular back disorders (44%) accounted for the largest cause of disability amongst the respondents. However, a wide variety of medical disorders led to some form of disability which interfered with surfing.

Most surfers (90%) were ultimately able to return to surfing, and of these, 82% were able to resume surfboard riding.

During the period of convalescence, respondents reported the major sources of assistance to be encouragement, information and the transitional use of an alternative wave-riding vehicle (predominantly malibus).

This survey has highlighted a number of issues:

1) The need for prevention strategies in terms of reducing the risk of musculo-skeletal disorders (particularly back problems); 2) the importance of the health professional in terms of the management of surfing disability and the skills such persons must have in terms of communication and ready availability of suitable "hand-outs" on disability in relation to surfing; and 3) the key part surfing magazines can have in providing information on medical disorders, various surfing disabilities and in particular, presenting case examples. Such case examples can serve as a source of inspiration to all surfers who might have the misfortune to develop disability. At the same time, people suffering various disabilities may become encouraged to actually commence surfboard riding for the first time.

A number of information resources in the form of scientific references, magazine articles, organizations and individuals are already available. Some of these have been mentioned in this paper, including the SMA, DSA, "Dr. Geoff", "Ask the Surf Docs" (SMA column in *Surfer Magazine*) and Renneker's recent overview article on surfing (1987).

Utilization of these and a large number of other resources within the frame work of primary, secondary and tertiary prevention strategies/resources are available in another paper (Booth 1988).

ACKNOWLEDGEMENTS

Mr. John Ellis, Editor of *TRACKS* Magazine for his co-operation in allowing this survey to be undertaken.

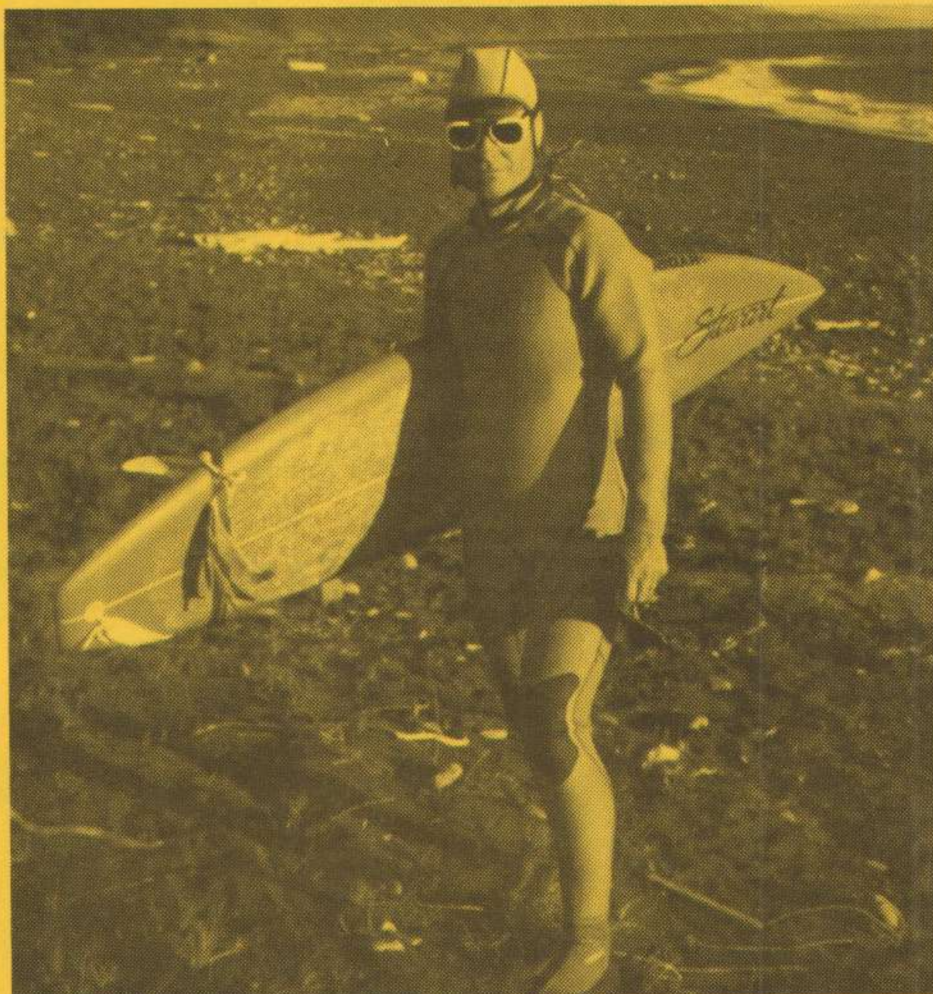
Those surfers who replied to the survey.

Mrs. Joyce Hitchcock, for unfailing secretarial assistance.

PRODUCT TESTING

SURF SHADES — A Critical Evaluation by the Surfers Medical Association.

by Mark D. Bracker, MD



Alien life form at Big Flat

When I hit 20 it started to happen; at first it was trouble seeing road signs at night clearly, then it was difficulty being able to spot my friends in the line-up while on the beach putting on my wetsuit. What happened to me also happens to a large number of people — I became progressively more near-sighted over the years. For my day-to-day activities, glasses were a simple solution, but when I went surfing, particularly on cloudy days or late in the afternoon, I had a real problem spotting the sets and getting in the right position for take-off.

When contact lenses came out and became reasonably affordable in the 70's, I thought that my surfing vision problems were solved. But as soon as the first big winter swell hit, first one, then two, then a third contact lens was sucked off and probably swallowed by some passing fish for lunch. It was not uncommon for me to replace several pairs each year, despite my best efforts to keep my eyes shut on duck dives and wipeouts. Now, perhaps, there may be a reasonable alternative to contacts.

I had the opportunity to field test a pair of *Surf Shades* (sunglasses specially designed for surfing) during the Surfer's Medical Association's Fall regional meeting at Big Flat in Northern California. The Surf Shades were provided by Jerry Rodriguez who put up with 20 years of near-sighted, blurry surfing before developing and marketing this product.

The major problems of surfing with glasses are that they easily get spotted with saltwater, they fog up from the heat off a surfer's face, and they are easily pulled off, even by small waves. To design Surf Shades, Jerry had to address these formidable problems to produce glasses that really do work in the water.

Before going out, Surf Shades need to be cleaned with soap and water, dried, then coated with a thin layer of anti-fogging gel. This ritual needs to be repeated with each session. Surf Shades are the last item to put on before gloves and hitting the water. They are tethered around the neck by a velcro strap. Even punching through small shore break waves caused the glasses to end up around my neck. When that happened, I wouldn't bother to stop paddling and just pulled them up when I got out into the line-up.

The glasses I used were Surf Shades with mirrored lenses which sell for $150.00. I felt very comfortable wearing them all day in the water and was especially happy as the sun started to go down not having to squint into the glare. The glasses actually enhanced the contrast of the sets as the glare increased.

Surfing in the wind and bright sun can cause some real long term problems with surfers; the most notable being the growth of scar tissue over the inside area of the eye called a pterygium. This condition may progress to cause impairment of vision and require surgery to correct it. Fortunately, eye injuries from surfing are relatively rare, but can happen. Surf Shades would help prevent pterygium from developing and offer some protection from a direct hit in the face.

After four days of Big Flat, I really started to rely on the glasses and found them to be a major advancement over my contact lenses. Water spotting was the most annoying problem, but generally only occurred when I forgot to coat the lenses before going out. Surf Shades seem to be a reasonable alternative to contact lenses at about the same price. Surfers who don't need prescription lenses and just want to be more comfortable in the wind and sun would benefit from the additional eye protection.

Surf Shades are available from: Surf Shades Hawaii, PO Box 1662, Pahoa, HI, 96778

UPCOMING MEETINGS

BLUFF UPDATE

Jakes Point, going off in Western Australia

BOOTH INVITE

Dear SMA North Members,

1989 heralds the first Australian based International Conference of the illustrious SMA. Significantly the conference will be held in Western Australia; symbolizing the vastness and timelessness of the Australian continent. Just imagine conferencing and surfing one of the true wave frontiers of this country. Dr. Geoff would like to invite you, as a Septic member of the SMA, to actively contribute to this conference.

Please find enclosed:

1. Conference Description/Abstract Submission.

2. Details regarding trip (dates, costs, contacts etc.)

The conference's prime objective is outlined in the enclosed "Conference Description/Abstract Information" flyer. As conference places are limited, participants will be chosen by the committee on the basis of the quality (relevance to the primary objective of this meeting) of their submission. However, commitment to the SMA in terms of time/energy will also sway the committee. Taking into account the locale of this conference, "being fun to be with" won't go astray either. Go to it --

Dr. Geoff.

Here's the conference description — we'll mail out the abstract submission.

JUST THE FACTS, MA'AM

Conference Description

The goal of the Fourth International Surfers' Medical Association Conference is to bring together, in Australia, an international group to identify and prioritize health and lifestyle matters relevant to the surfing community. The objective is to canvas input from a broad base of the community to establish a strategic plan to achieve this goal.

As the conference members are limited, participants will be chosen on the basis of their area of speciality. As it is to be a collaborative symposium, participants will also lead seminars on their topic.

Call For Abstracts

Scientific, review and speculative papers are invited in the following areas:

1. Medical

This category provides opportunity to examine the nature, prevention, treatment and rehabilitation of injuries, drugs and nutrition, lifestyle risks, health issues, etc. related to surfing.

2. Scientific

Presentations are invited of research in the sport of surfing and the science relating to all aspects of performance, eg. fitness, biomechanics, equipment innovations, etc.

3. Surfing Community

In this category we invite you to draw together community interest in the sport, eg. educating coaches; coaching beginners, intermediate, and elite surfers; contest rules for juniors; fitness and health through surfing; girls and women in the sport; lifestyle choices; careers; careers; environmental issues; disabled surfers; surf camps; interaction with indigenous peoples.

4. Looking to the future

Here is an opportunity to share your visions, idealism, passion, innovation, expectations and hopes for future of the sport/lifestyle of surfing.

BRADLEY INFO

Well, here it is, you guys and gals — the surf trip of a lifetime.

THE LOCATION: the Bluff, Western Australia, just north of Carnarvon, as immortalised by "Surfing Wild Australia"....located on the tropic of the last frontier of Australian surf. Desert surrounds, pristine coastline, unlimited surf spots with one of the world's best lefthanders thrown in for measure.

THE SURF: Ranges from beachbreak size to double/triple overhead with setups capable of handling all conditions. Water temp around 25°C/77°F with sand and rockshelf bottoms with sea-

urchins common (bring your boots). Board size is not 'Cloudbreak' survival stuff; a 6'4" did me fine until it got real big last year — bring a 7' if you have one. Noon temps around 30°C/86°F.

Itinerary: Leave from Perth by Greyhound Saturday, June 24, pickup in Carnarvon by 4 wheel drive buses, be in camp by p.m. of Sunday, June 25. Surf and inculcate until Friday, July 7 — return Perth overnight, arriving pm of Saturday, July 8. During our stay, a one day trip to the wild dolphins at Monkey Mia. Large marquee for conference meetings, generator power for lights/slides.

Food & Water: It is remote desert Australia and consequently our host, Dean Forsyth from West Coast Safaris, needs to take into the Bluff all our water and food requirements...so don't expect the Hilton, some of you jaded overseas surfers. Brekka will be of the order of cereal and toast, Lunch: 'fresh' sambos, Tea: (the main meal in OZ), grills/roasts.

Extra Information: Full accomodation in 2 man tents; it is cool at night and no mozzies, naturally; full 'medical' and board repair kit available; little or no natural shade cover; 2 hour 4 wheel drive to nearest humans/phone/hot bath; local surfers are mellow providing we are; sealife is phenomenal: whales, dolphins, crayfish, tiger sharks; there will be regular enough trips back 'to town' to restock film/hairspray and other necessities.

The Cost: Count on it being $1100 (Aust)* an adult head, Perth/Bluff/Perth all inclusive. Children over 12 full fare, 12 and under half fare, babes in arms free.

Limit on Numbers: There will be a max 18 hard-core surfer size with a max total party size of 40 applying. This is to preserve the delicate balance of fragile popular locations like the Bluff.

Enquiries: Drop me a line or ring, between 7-10pm SYDNEY TIME, on 042 377 297 (Wollongong Australia).

– Cowabunga, Jim Bradley.

If you are interested in going, send Jim Bradley the enclosed applic`ation form.

**\$880 U.S. dollars*

MAKING YOURSELF USEFUL IN THE THIRD WORLD

Tavarua, Fiji, March 18 - April 1, 1989

This two-week conference, aimed at finding ways to appropriately use Western medical skills and knowledge in a Third World setting, was described in the last journal. There have been many conferences and courses available through the years on tropical and Third World medical issues, but none aimed specifically at teaching travelling health professionals (and barefoot doctors) to put their knowledge to work in a way that will have a lasting effect. This is a chance to drop in on a new wave in Third World medicine.

Working with members of the Hesperian Foundation (the California-based organization devoted to training and educating village care workers), we are now putting together the conference and curriculum. There will be seminars, discussions on Tavarua, and hands-on health care and education in Nabila and other villages in the outlying islands.

The conference is open to SMA members and non-SMA members, surfers and non-surfers. Response to the conference has been enthusiastic, and places are filling fast. There are only three spots left for sure: one for a surfer, and two for non-surfers. Spread the word to your non-surfing friends and send your deposit ($250) in now!

Don't miss out. This could be the best and most useful vacation of your life. Read through the conference description in the last journal and call the SMA, STAT!

Tony Moore, making himself useful in Nabila

NEW SMA PROJECTS

TAVARUA DOCUMENTARY

Bill Heick at work in the Galapagos

[The following letter is being used to approach potential corporate sponsors. If you can think of any "plums ripe to be picked," and would like to help out - call us *immediately*.]

Proposal for "**BAREFOOT DOCTORS**"
A 12-minute, 16mm color documentary about healthy surfing, proposed by the Surfer's Medical Association (SMA)

To: (prospective corporate sponsor)

For: Consideration for underwriting, as the sole corporate sponsor ($15,000 requested)

Date: January 15, 1989

OVERVIEW

The purpose of this project is to reach surfers, particularly younger surfers, with the idea that they can combine surfing with a healthy, productive life-style. It will present the sport of surfing in a very positive light, showing surfers as responsible people, interested in working toward making this a better world.

"Barefoot Doctors" will introduce the Surfer's Medical Association (SMA), shown at their upcoming March 1989 meeting on "Making Yourself Useful in the 3rd World," in Tavarua, Fiji (see attached). They will be seen combining surfing (in perfect waves) with journeying into remote villages to do health-work with native Fijians. Both surfing physicians ("surf docs") and non-health professional SMA members ("barefoot doctors") will be featured. They also will be shown back in California, in their respective jobs, and on their local beaches working with other surfers to prevent surfing-related medical problems. Active responsibility for protecting our ocean environment will be an underlying theme, as well.

The intention is to use the film as an "extra" at surf movie showings (i.e., after intermission), to tag it on to video surf films (or as a separate video) that are available in surf shops, and it would be suitable for airing on television and showing in schools.

Surfers seeing this film will (1) acquire information about safe surfing, (2) acquire practical skills, such as taking care of a wound, and, in a broader sense, (3) develop an expanded vision of a productive life that includes surfing. Non-surfers seeing this film will develop a different appreciation for the sport of surfing. The corporate sponsor underwriting this film will be prominently featured and be seen as supporting this positive, responsible view of surfers and surfing.

The individual in-charge of producing, directing, shooting, and editing this film is Bill Heick (an experienced documentary film maker - see resume. The Surfer's Medical Association will be responsible for the writing and distribution of the film.

The film will be made in 16mm, and then transferred to video. While it would be less expensive to initially shoot the film as a video, a video cannot be shown as a "surf film" in auditoriums or in schools. And, the cost of producing a video of sufficient quality to broadcast on television would be about equal to the cost of producing it in 16mm - but, again, it still would not be suitable for showing in auditoriums.

This will be a non-profit venture; the budget is for materials only. Bill Heick will be donating his time to the project, but will need his travel expenses covered. SMA members will cover their own travel expenses and donate all of their labor. The SMA will be responsible for administering all funds. Donations to the SMA (such as the funding for this project) are tax-deductible; it is a non-profit, charitable corporation.

A representative of the sponsoring corporation (i.e., their CEO) would be invited to introduce the film (on screen) and express why they chose to sponsor it. The corporate sponsor will be invited to share in the promotion of the film. Also, the corporate sponsor will be invited to send one or two of their sponsored surfer-representatives to participate in the conference. Ideally, that would include their best known (the more famous the better) and their youngest surfer - providing a valuable link to surfer-viewers as they see their surf heroes working with the Surfer's Medical Association as "barefoot doctors."

[Budget attached]

TIMELINE

March 1: $7500 needed from sponsor
March 18 - April 1: SMA in Fiji, filming takes place
April 15: balance of $7500 needed from sponsor
April 20 - June 1: post-production work, SMA arranges distribution
June 15: film ready for distribution

SMA DOCS AT SURF CAMPS

[The SMA has received a proposal from the operators of some of the surf camps in Indonesia to provide medical care for visiting surfers in exchange for free accomodations at the camps. Seems like a great idea to us! Here's a letter Mark wrote back outlining what it would take to provide good care at a surf camp like the one at Grajagan.]

Bobby Radiasa
Br. Pande Mas
Kuta Beach, Bali 80361
(0361) 51363

Dear Bobby,

Our mutual friend, Gerry Lopez, has recently written to me about your interest in having members of the Surfer's Medical Association provide on-site medical coverage at your Indonesian surf camps, in exchange for free accommodations. I have since discussed it with many of our members, and the consensus is that it is an outstanding idea! The feeling is that it could greatly benefit you and the surf camps, as well as the Surfer's Medical Association; that it would be a logical and healthy step forward for all of us, and surfing, in general.

The Surfer's Medical Association is a pretty hang-loose group -- not one for formality and contractual arrangements -- but rather than leave the arrangement informal, with surf docs randomly and irregularly showing up at the camps, with or without the necessary equipment, I think we should more towards a more structured plan.

One big problem is that no matter how well trained a doctor is, if they don't have the right medical equipment and medications, they really won't be very useful. Also, not every doctor will be able to function as competently as one might hope, depending upon their specialty-background and experience in wilderness and surf medicine. Though the bulk of problems will be simple reef rash (abrasions), lacerations (deep cuts, some requiring suturing), sprains and strains -- there will also be more complicated problems, such as ear infections and perforations, diarrhea, hepatitis, dengue fever, malaria, and fractures.

Given the above considerations, here is what I propose:

1. Establish a medical station at your camp(s), starting with Grajagan, which will be fully equipped with the necessary medical tools and medications. It needn't be a big building, just a clean , well-lit room or hut where surfer-patients can be seen and worked on, and where the equipment can be safely stored (and only you or your designee, and the surf docs will have access to it). The SMA has developed comprehensive lists of medical tools and drugs that such a surfer's medical clinic should include (see the enclosed - the complete Kahuna Kit is what would be necessary). It seems reasonable to me that you should pay for developing the medical station, including providing the equipment and medications (probably about $1000 to 1500 to set it up, then $500/year). It will be essential to keep an inventory, and to have a timely system of replacing all items used. We would bring for you those things that couldn't be obtained in Indonesia. The station would allow the surf doc to handle virtually every medical problem, minor and major, including catastrophic events such as a full cardiopulmonary arrest, punctured lung, head injury, drowning, crush injuries, major burns, etc.

2. The SMA would develop an "on-call" schedule, whereby SMA members would sign up for shifts at the camp -- probably one to four week stints.

We would make every effort to ensure that the person has the necessary training and experience to do the job. We would anticipate that some advanced medical students would be competent, and there will be some advanced barefoot doctors who could also do the job (i.e., non-physician health professionals, such as knowledgeable physical trainers, paramedics, etc.). We could probably guarantee staffing for at least the peak 3-4 months (June - September), but maybe the full-season. We would start with G-land, and expand to the other camps once we work out the details.

3. We would ask for free accommodations for the surf doc and their family, if they want to bring them (which would probably only be their wife/husband or girlfriend/boyfriend, and on occasion an older child or two).

The surf doc would pay for their own travel in getting to Bali, but you would cover their travel from Kuta to the camp.

4. We would ask for a letter of agreement from you, that should include a statement freeing the surf doc of liability (i.e., your camp would assume responsibility if, for instance, a surfer decided to sue for malpractice). This arrangement may need to be cleared through the Bali/Javanese government or health officials, or at least they should be made aware of it. We will leave that for you to do.

Having such a medical system for your camp would certainly put you into the forefront of all surf camps. It would help in making your camp the best G-land camp (though from everything I have heard, it clearly already is). There will no doubt be some surfers who otherwise wouldn't have felt safe going to G-land, but would decide to come because of there being medical staffing and medical facilities. You could, in fact, charge more for coming to your camp. The flip side, though, is that some people may really start "going for it" -- knowing that a doc is there to patch them up, and the injuries may tend to be worse.

Enclosed are some materials on the SMA, including information on our upcoming conferences. You will notice that we have a conference planned in Western Australia for June 24 - July 8. I would like to organize a small group of SMA members (probably two to five) to come before or after that conference to met with you at G-land for perhaps a week, ideally to set up the medical station and work out all the details of how the SMA-Grajagan surfer's medical station will function. Also, we should discuss plans for the SMA to hold a conference at your camp(s), such as we are already doing at Tavarua and the Bluff. The first conference could simply be on "Establishing Health Care for a Surf Camp."

Obviously, we will need to correspond quite a bit to get things going, but I think the whole project should work out great! I look forward to hearing from you soon.

Sincerely,
Mark Renneker, M.D.
cc: Gerry Lopez

[Obviously, this project will involve a lot of SMA members, so drop a line or give a call if you're interested in participating. We'll begin assembling a list of surf docs and available times. Non-physician SMA members could also be involved -- it would be an ideal opportunity for training of barefoot doctors]

SMA UPDATES

HANDBOOK OF SURF MEDICINE

When SMA members phone, the three most often asked questions are (in order): (1) "How's the surf there now?", (2) "When's the next Fiji trip?", and (3) "What's doing with the book?" The book, we are happy but regretful to report, is still being written. Happy, we say, because it is turning out splendidly; regretful, because it is a motherfucking lot of work and is taking much longer than we'd anticipated.

Since the last update on the book (in *SMA Journal* #2, February 1988), the fast-talking, fast-writing South African-transplant-to-San Francisco SMA member, Tony Peckham (his yoga friends call him Sri. Peckabindo) hired on to edit and put into MacIntosh the assorted six-hundred pages of manuscript (three hundred different topics, thirty contributors). That effectively led to a finished first draft, which was finished just in time for the June SMA Fiji conference.

Co-editors, Mark Renneker and Geoff Booth then roomed together on Tavarua, expressedly to work on the Handbook. They compared the manuscript at that time with what was called for in the original 1986 prospectus, which outlined over 500 topics. Realizing that a third of the book was yet to be written and that much of what was already written had to be shortened and cleaned up, they divided up the work-to-be-done, and returned home with a shit-load to accomplish.

Of note was when Renneker and Booth had an historic private meeting in the Tavarua checkout treehouse on the last day of the conference, in which they agreed to each personally put up whatever amounts of money it would take to bring the book out - that the SMA could never be expected to have the $25,000 to $50,000 needed to publish the book.

Also, the plan is to have a simultaneous American and Australian edition, with Renneker honcho'ing the American one, and Booth the Australian one. The content will somewhat differ, as will the printing methods. Both will be done in the least expensive way possible, so that surfers can afford it. The books will be handbook-sized (5" X 7"). The goal is to print as many as possible, upwards of 20,000+, reasoning that the same amount of work and promotion would go into selling 20,000 books compared to the usual break-even first book printing of 5000. It would only be a bigger financial risk for Renneker and Booth, but they're not the type to just take off on the shoulder -- they're right-from-the-heart-of the-peak and pull-into-it types.

Revised completion date is 1990. Any members who already sent money in for their copies, if you are willing to wait, great; if not, let us know. We plan to ask many of you to be our initial reviewers, to be sent a pre-publication draft. Keep the faith!

Doc Ball, surfing at age 81

NEW BROCHURE

Scott Thayer has put together the killer new SMA brochure. No more of our fuzzy, xeroxed brochures — the new one is beautiful, in a whole new league. We've ordered 3,000 (!) of 'em — all members will get a couple to pass on. Keep in mind that the brochures cost the SMA 40 cents apiece (a printing of 500 would have been 80 cents each!) If you want a bunch to pass out at a meeting or on a trip, send in some money to cover the request — if you really want to store up some good karma, send along a stamped, self-addressed manila envelope. Thanks, Scott and the other "committee" members — that was a helluva lot of work.

COSTA RICA TRIP FIZZLES

The SMA Costa Rica conference planned for February 1989 was cancelled back in late October. It appears that there were two major factors: 1) Organizer Bill Rosenblatt got a lukewarm (at best) response from East Coast SMA members; and 2) SMA hodad member Nelson Lugo made an offer to Bill that he couldn't refuse; i.e., "come to lovely Puerto Rico in February, I'll show you around, introduce you to...". Anyway, by the time we heard the conference was cancelled, Bill already had reservations to fly to Puerto Rico. Costa Rica, Puerto Rico — it's easy to get confused....

SMA HAWAII CHAPTER

Bob Speers, a Honolulu neuropsychologist specializing in brain-injury rehabilitation, has started (completely on his own initiative) a local Hawaii chapter of the SMA. He's organized several meetings, discussing ideas such as free clinics for surfers and the formation of a network of health-care practitioners knowledgeable about surfers' health problems. Also on the agenda are weekly trips up to the North Shore to surf with other SMA members.

So far, he reports, the response has been "somewhat less than dismal." There has been some interest, but overall, the reaction among the local surfing health professionals has been one of underwhelming apathy — a reaction that parallels our experience at the October 1987 meetings on the North Shore. It's ironic that the world mecca of surfing is such a difficult place to generate enthusiasm about surfing and health care.

Bob seems unfazed, though, and plans are going ahead for more activities. Hawaiian members who know a good thing when they see one should contact him at (808) 395-6339 — he'd also like to hear from visiting SMA members.

NABILA MAKES THE NEW ENGLAND JOURNAL

Check out page 7 of the January 5, 1989 *New England Journal of Medicine*. Tony Moore may be the only SMA member to ever make it into the NEJM.

SMA SLIDE SHOW UPDATE

Geoff Loman and Geoff Booth simultaneously took the plunge and put in orders for the SMA slide show, forcing Mark to finally finish up writing the key. It's done and it's awesome, a true compendium of surf medicine. One copy is here in San Francisco, the other has been sent off to make the rounds in Australia under the care of Geoff Booth.

Again, the deal is, you send $25 to cover costs of mailing, insuring, etc., and you get the set for a month. It's ready to go — an instant talk on surf medicine, guaranteed to keep your audience riveted.

Send requests for the slide show to SMA central or to Geoff Booth, PO Box 1070, Newcastle, NSW, Australia 2300, phone# 26-4216

KEEPING UP WITH DOC SCOTT

— is a full-time job. He took the Proplugs show on the road to Brazil recently, holding an impromptu surfer's ear clinic at the Brazilian National Pro Surf contest. "Folha de Sao Paulo", the biggest newspaper in Brazil covered his activities at the contest, proclaiming that "Doc Scott is not a charlatan." For his part, Doc Scott liked the place so much he's thinking of living there for a while.

Doc has a new product out — Doc's Promold. An outgrowth of the Proplug idea, it's an earmold designed to hook up to a hearing aid and made of a material that custom-fits individual wearers. Given the success of Proplugs, this may be worth looking into for your patients with hearing aids — write Doc at POB 262, Capitola, CA, 95010.

Doc just sent in his $250 Life Membership. This alone is worthy of mention, but even more extraordinary is that, at 61 years old, he qualifies for Silver Surfer membership and didn't have to pay dues at all! More than anyone else over the years, Doc Scott has demonstrated a commitment to healthy surfing.

Doc Scott examining Brazilian surf champ. From Folha de Sao Paulo

DR. SKIP'S HEALTH TIPS

Skip George, SMA chiropractor, has a column in the new bimonthly San Diego surf magazine, Beach n' Waves. His first column was on neck and back pain, the nemesis of surfers. Skip's ad in the same issue offered "treatment of surfing injuries" — great stuff, the first time we've seen anyone advertise treatment specifically for surfers.

APOLOGIA

These folks' names were left out of the listing under last issue's Tavarua group photo — sorry. Here they are:

Mark Gillett (emergency medicine, Illawarra, Australia) and his Cyclone, Bill Finnegan (writer, New York City) and his palm tree, Greg Kennedy (alternative energy contractor, San Francisco), Jeanette Kever (X-ray tech, Salinas, California).

SMA BABY BOOM FLASH! (from Rym Partridge)

The Partridge family is growing! Against Mark Renneker's recommendations, Winnie and Rym Partridge decided to have twins. What they didn't decide was that they were both going to be girls! Two twin girls! Well, that's two new SMA members — born yesterday, December 18, 1988. I'm paying their SMA dues today; probably their membership category is future woman-pro-surfer member. I can see it now, 16 year old twin pro-surfer girls going out with Dad for his last time out at 15-20 foot Waimea Bay and he's around 59 or 60 years old. Well, I guess these kids can make you go for it for a few more years.

DISCOUNT DIGS ON THE NORTH SHORE

Perhaps a bit giddy after the birth of their twin girls, Rym and Winnie Partridge are offering rental of their North Shore cottage at a discount to SMA members. The cottage is right near Sunset and Pipeline — book it as early as possible. Call Rym at (408) 423-6203.

SMA FINANCES

What, you may wonder, do your membership dues pay for -- and how much money has the SMA taken in? In a nutshell, membership dues support the membership. They cover the cost of having a membership: communication (telephone, postage) and the production and mailing of the journal. Each copy of the journal works out to costing about $5.00 to produce, print, and mail. Just look at the amount of postage on the envelope it came to you in: about $1.00 if in the U.S., and triple to quadruple that if in another country. If we suddenly had one hundred more Australian members, we'd go broke! We're looking for ways around that, though. Right now, we're trying to bulk-mail to an Australian distribution point (Geoff Booth), and having them locally mailed from there. Unfortunately, this means that Australian members will always be two to three months behind in hearing about upcoming conferences. To get around that, we'll need to send the conference announcements separately, by fast mail, to Down Under members.

You can also see why our Financial Kahuna, Scott Thayer, has insisted that we raise the dues. On the back cover of this journal, and in the new brochure are the new dues amounts - effective as of January 1989. The chief difference is that Barefoot Doctors went up from $10 to $15, and health professional members went from $25 to $35. Not in the brochure, because it was an afterthought, but listed on the back of this journal, is the creation of an essential new membership category: the "Professional Member: for non-health professional surfers with real jobs, $35/year." This will establish parity with the health professional members and eliminate the ambiguity (and great deal!) that many of you non-health professional professional types had when you signed up as Barefoot Doctors for a piddly $10 - when your annual income is actually over $30,000 (i.e., not your typical surfer). The Barefoot Doctor membership is for the classic surfer: probably younger, lives with parents or going to college, scrounges just to have enough money to have a decent board and wetsuit, you know what we mean.

Another of Rym's surf parties

Apart from expanding our membership, the real growth of the SMA has come from those of you who join as a Charter or Life Member. That surplus of money is what has permitted, for instance: putting out $600+ to the U.S. government to gain our non-profit status and to apply for our tax-exempt status (still pending, but it looks probable); putting down $4000 deposits for our Tavarua time, because many members who are going don't send in their deposits when they are due (even though they swear they will); buying a new printer after the SMA duties burnt out Craig Wilson's and Mark Renneker's; developing the SMA slide show; covering a minimal stipend for the SMA fellow (which "buys" us a physician's time for about $2.50 an hour, to help handle all the SMA work); putting out $1600 for developing and printing the new brochure; and lots more - you get the picture. Those more generous memberships were, in the beginning, the start-up money for the SMA, and now they are letting us really take root.

As for the "big" picture of our finances, you'll have to wait for the next issue of this journal, when our SMA Accounting Kahuna, Tom Kever, will present what would traditionally be called a "treasurer's report'" but we're hopeful he'll come up with a better name.

SURFING MEDICINE: A pier-reviewed journal

Here's your chance to add a significant publication to your resume: consider making a submission to the Journal of the Surfer's Medical Association. Send us your surfing related case reports, research, proposals for upcoming trips or projects, stories, and anything else you feel is relevant to surfing and medicine.

Rules for Submission:

1) Use a condom.
2) Send material in early - at least two months before the next issue.
3) Include pertinent references (don't be like Geoff Booth in this issue).
4) We'll love you even more if you put your material on a Macintosh disc and send it to us.
5) Include any graphics and photos (especially surf pics, particularly if they are of you).
6) Proof-read your stuff a couple of times - have your kids correct your spelling and punctuation.
7) We'll publish anything sent in that looks good and passes pier-review (we pass it around the derelicts hanging out under the pier; if it meets their rigorous standards, it's in).

NEXT ISSUE

Look for the next issue in late summer/early fall of 1989, listing conferences planned for 1990 (in other words, if you're not signed up to go to Fiji or Western Australia this year, you really blew it). Submissions for the next issue should be sent in before the end of June.

We'd like to include more about what various SMA members are up to (professionally, family-wise, surf-wise, etc.), so send us updates for the next journal. Also send your comments about what the SMA and this Journal are doing. Whether it's praise or bitching and moaning, we'd like to hear from you.

Here are a few things on tap for the next issue:

- Craig Wilson's heavy data on the North Shore Clinics.

- how things went at the "Making Yourself Useful in the Third World" conference in Fiji.

- a report on the annual SMA conference to be held at the Bluff in Western Australia.

- various features on disabled surfers who've managed to stay stoked against the odds.

GOALS OF THE SMA

FIRST WAVE The number one goal of the Surfer's Medical Association is to educate surfers so they can spend minimal time hasssling with doctors and maximal time surfing.

SECOND WAVE To conduct and support research and educational activities on surfing and health.

THIRD WAVE To represent the sport of surfintg in the fields of medicine and science.

FOURTH WAVE To teach physicians about the unique health problems of surfers, and how to better care for surfers.

FIFTH WAVE To create a network of barefoot doctors and surfing health professionals around-the-world.

SIXTH WAVE To protect and preserve the surfers' natural environment: the waves, the ocean, and our beaches.

As a special witness to
The President's War on Surfing Committee,
Bill the Cat reveals his sordid past

"At first, I just did it on weekends, with my friends, you know? We never wanted to hurt anyone. The girls loved it. We'd all hit the beach and do a little surfing. It was just a kick. At least that's what we thought. Then it got worse.

It got so I'd have to do some surfing during the weekdays. After a while I couldn't even wake up in the morning without having that craving to go surfing. Then it started affecting my job. I would just have to do it during my break. Maybe a quick wave or two in the company pool. I eventually started surfing just to get through the day. Of course, it screwed up my mind so much that I couldn't even function as a normal cat. Surfing got me fired from my job.

I'm lucky today. I've overcome my surfing problem. It wasn't easy. If you're smart, just don't start. Remember, if some weirdo in a swim suit offers you a surf board, just say no."

SURFING...

Just Say No !

A special message brought to you by The President's War on Surfing Committee. ©1988

MEMBERSHIP INFORMATION

Memberships are for one year unless otherwise specified, and include a decal, membership directory, biannual journal, and invites to all SMA conferences. Membership is a way of both joining and contributing to the SMA. Choose your category accordingly.

TO RENEW: When did you first join, or last renew? Was it a one-year membership? Figure it out (reminders abound). Consider Life Membership to simplify things in the future.

TO JOIN: Choose your membership category, fill out this form, make out a check payable to the Surfer's Medical Association (in U.S. dollars), and mail to: Surfer's Medical Association, 2396 48th Avenue/Great Highway, San Francisco, California 94116. (415) 664-7027. Be patient if you don't hear back from us right away (especially if the surf is good).

PLEASE SEND US THIS INFORMATION

copy or Xerox if you don't want to disfigure your journal

Date ______________

New Member ◯ Renewal ◯

Name ______________

Address ______________

City/State ______________

Zip ______________ Country ______________

Work phone ______________

Home phone ______________

Membership Category ______________

Amount [Fees as of Jan. 1st, 1989] $__________

Type of surfer (stand-up, boogie, etc.) ______________

Years surfing experience ______________

Present number of go-outs per month ______________

Your worst surfing injury ______________

____

____

Type of work/specialty ______________

Job title/Academic position ______________

What about the SMA stokes you the most ______________

____

Name/address of a surfing buddy(s) who you think would appreciate being invited to join the Surfer's Medical Association:

Life Member: Totally Committed and has some bucks — pay once and you belong forever. $250

Charter Member: Wants to be a Heavy Local in the organization. $100

Health Professional Member: the Surf Doc Membership — for those who spent too much time going to school and now want to surf more. $35

Professional Member: for non-health professionals with real jobs. $35

Barefoot Doctor Member: the Surfer's Membership — for surfers interested in learning how to take better care of themselves and others. $15

Gremmies Member: for beginning or young surfers. $5

Silver Surfer Member: for the elders of our sport (over 60) No charge.

Corporate Sponsor: philanthropy has its costs...$500 and up.

Corporate Guilt Member: for those who have exploited surfing for personal gain — you know who you are, now pay up. $1000

The John Cherry "I Won't Join Anything" Membership: for the truly hard-core non-joiner. $109.95

Life's A Beach Member: for wealthy patrons who believe the surfer's life-style should be supported to the max. $100

Illegal Member: $100 cash or equivalent. Anonymity guaranteed (unless Nancy Reagan wants to know).

Surf Parent Member: for those who want to see Johnny come home in one piece. $25

Surf Family Membership: the family that surfs together, stays together. $25 ($50 if any family member puts a degree down after their name).

Surf Widow Membership: for spousal equivalents of surfers — the SMA can help! $10

I'll Join Anything Member: for non-surfers who think it would be cool to join a surfing medical association. $19.95

Join Now, Pay Later Member: send us your hard-luck story. $0

Organizational Member: let's trade memberships to keep each other up-to-date. $0

Surf Professional Member: for career surfers — you endorse us, we endorse you. (the SMA supports pro surfing). $0, and maybe an occasional favor.

Hodad: interested in joining, hasn't paddled out yet.

Shoulder-hopper: those who drop-in on the SMA without paying their dues.

Snake: a flagrant, chronic shoulder-hopper (always promising to pay their dues)

After-Life Membership: for Life Members, a chance to surf in the hereafter — the SMA will do everything possible to see that your organs are donated to surfers, and we'll provide a lovely surfboard tombstone for your grave. $1000

T-shirts: only available at SMA conferences
Additional Decals: $1.00 each.
Wall Diplomas: $5.00 each.