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chondromalacia, in many instances if not most stems from an imbalance in the foot. Thus, in my daily run, traveling against traffic was a painless outing, but should I run with traffic, I would soon develop pain in my left knee which would worsen with each session. The apparent source of the difficulty was that the crown of the road caused me to run on the inside of my left foot traveling with traffic, but on the outside while going against it.

Shortly thereafter I began a correspondence with a first-class runner who had been suffering with symptoms of chondromalacia for more than two years. Running despite severe pain, he was able to confirm the fact that running on the outside of the foot relieved his symptoms. Unfortunately, we did not take the next logical step until he developed arch symptoms. After these developed, he had inserts made and soon was running long distances without trouble. Within a short period of time he ran the fastest marathon of his career.

His case and two others are briefly summarized.

Case One: A 26-year old ex-Marine with a two-year history of typical chondromalacia treated with rest, Butazolidin, and steroid injections became free of pain after supports were made by his podiatrist from molding and cast of foot.

Case Two: The patient developed signs and symptoms of chondromalacia, made worse while running: and when seen by a podiatrist was found to have a short first metatarsal with excessive pronation. After insertions of corrective support he became asymptomatic, and in ten days returned to number one position on his team.

Case Three: A 28-year old runner, with a three-month history of knee pain due to chondromalacia, unimproved by rest, had (on his own) bought and tried arch supports and reported that "in one week I was able to run with no pain whatsoever."

Chondromalacia is an overuse syndrome of unknown etiology. Evidence is here presented that the additional factor to overuse (5000 foot strikes a training day—90 a minute for one hour) is a peculiarly susceptible individual. This susceptibility arises from an unstable foot with the mechanical imbalance transmitting a torque to the knee and causing the patella to override on the lateral condyle. What confirms the foot as the source of the problem is that knee pain is relieved when the crown of the road throws the runner on the outside of the foot (reversal of direction on the track will do the same thing) and that corrective inserts give permanent help.

Overuse alone is not the cause. Although the physician may be surprised or even appalled at the distances covered daily by these runners, he should be aware that many athletes are completely asymptomatic running 70 to 100 miles a week.

We need a fresh look at all overuse syndromes of the leg, knee, hip, and back to see if abnormalities of the foot are present. Repeated stress fractures (I know of one runner who had a stress fracture every year in college) point to a basic mechanical problem involving the foot-leg relationship.

This basic abnormality of the foot must be diagnosed before we can give overuse victims anything more than palliative treatment. Our best help in these injuries is a thorough investigation of the foot and the foot strike. Podiatrists, who have outstripped orthopedic surgeons in diagnosis and even more in treatment, especially in the molding and casting of corrective inserts, should be consulted for their valuable aid.

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You would be surprised at the number of athletes who have worn braces for months or complained of a back ache just because they were scared, either of the other guy, themselves, or of losing or of what his girl friend would think, or because one of his team mates had taken his girl, or just plain scared.

What I am referring to in medical terms is called hysteria, and should not be confused with the term hysterical, although they mean much the same thing. However, hysteria is more subtle. The hysterical person simply emotes; the person with hysteria emotes by transferring it to a form of disease or injury to some part of his body.

One of the most important points to remember in dealing with hysteria is that the form it takes varies in subtlety in direct proportion to the patients' I.Q., or intelligence. The more intelligent the patient the more complex becomes the problem. In other words, a patient's symptoms and disabilities must be entirely reasonable to his way of thinking. A man with a third grade education can have hysteria more easily seen through than a doctor, whose professional thinking would make a case of hysteria that would be very hard to diagnose, although both men may be equal in native intelligence.

It is our purpose to show this to you by giving you several actual cases which illustrate this fact. The stress of combat in war brings out these emotional characteristics to a much larger degree than on the athletic field. Therefore, to make the illustrations more clearly cut I am giving you actual cases which I saw during the war, and leave you to transpose the same personalities to similar personalities on your team.

The first case I would like to present is a man who had made the army his career. He had been endoctrinated strongly with army traditions of bravery and loyalty. He had gone no further than the third grade in school. He had been sent back from the front lines because of total deafness, and of course, being sent to the Psychiatric Ward we assumed that his deafness was emotional. We were greeted with our first moderately toned questions with a loud shout from him, "I can't hear you," and a low giggling from the group of patients with him.

Later, when I had a private interview with him it began the same way and my voice soon wore out. I began writing the questions I wanted to ask him. He would begin reading the questions while I was still in the process of writing them.

While I wrote I also spoke the question in an ordinary voice. The patient, I soon noticed, was answering my questions before I had finsihed writing them, so I pulled a little trick on him. I wrote the question, "Did you get to the Moselle River?" but the question I said aloud was, "Did you get as far as the Marne River?" His replies had toned down to an ordinary voice by this time and he replied, "I didn't get to the Marne," This reply, of course, made it obvious that his hearing was not affected. I quit writing and after a moment's thought I began talking to him in an ordinary voice. As soon as I started, the patient began shouting again that he couldn't hear me. Nevertheless, I continued to talk in a low voice explaining to him how I knew he could hear, and told him that I realized that under the loud booming of guns and the emotions attached, his ears had been affected and he had worked himself up to a state of mind to make himself believe he was deaf. I also explained to him that he would be sent to the ear specialist, who would give him some treatments and he would gradually get back his hearing and therefore, not be disgraced

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to survive than tissues at normal body temperatures. Reduction of the metabolic rate by cooling can be explained chemically, since the rate of a chemical reaction is decreased by one-half with a 10 degree reduction in temperature.

IMMEDIATE POST–INJURY CRYOTHERAPY

The use of ice in immediate treatment for sprains, strains and contusions is quite widely used. The prime objective is to control the amount of swelling in the area. In these acute and sub-acute injuries where connective and muscular tissues are involved by being stretched or torn the injury is associated with local inflammatory reactions, increased metabolism and elevation of the tissue temperature. Immediate cold application decreases the severity of the local cellular damage by minimizing hemorrhage and edema.

EFFECT OF PAIN, MUSCLE SPASM

Olson and Stravino state:

To clarify the physiologic effects of cold on pain and/or muscle spasms, a brief look at the depth of cold penetration within the tissues is necessary. Cold applied to the surface causes a substantial lowering of the tissue temperature a considerable distance below the surface. The extent of influence of cold in reducing tissue temperature depends upon 1) the nature of the substance applied to the skin, 2) its variation from the temperature of the skin surface, 3) the duration of application, 4) body region to which applied.

Cold provides a local anesthetic action on pain fibers, decreases nerve conduction velocity. It also bombards central pain receptors to the point that pain impulses are swamped and obliterated. When the pain is overcome the reflex arc is broken and the motor impulses causing muscle spasm to cease.

Sheldon states:

The application of cold packs directly to involved muscles simultaneously with heat to an uninvolved section of the body, to maintain the body core temperature and prevent shivering, has proved to be an effective method in relaxing muscle spasm. Speed and completeness of recovery from varying athletic injuries with the use of this combined modality is very gratifying. It is particularly true in the rehabilitation of muscle spasm secondary to injuries occurring in and around the neck, shoulder and extremities.

In summary — yes, cold is a valuable, safe, effective treatment procedure, both for immediate and follow-up treatment. The cold can be applied by chemical (solid or spray), ice towels, soaks, massage, etc. The choice of treatment varies with size and location of area. To use cryotherapy the athletic trainer must possess knowledge of the athletes condition, establish goals and continue to evaluate the progress of treatment. Much research is needed in case histories and scientific data to further investigate this and all treatment procedures.

"THE TRAINER" WELCOMES ARTICLES THAT WILL BE OF INTEREST TO THE ATHLETIC TRAINING PROFESSION. AS SOON AS A FEW PAGES ARE PREPARED, ANOTHER ISSUE WILL BE PUBLISHED AND SENT TO APPROX–IMATELY 2,500 ATHLETIC TRAINERS.

HOLLY NEEDS HELP

Miss Holly Wilson is one of the pioneer women trainers. She is Head Women's Trainer at the University of Iowa and is working on her doctorate. Her thesis will deal with athletic training for women. — How about taking time to give her what information you have? Here is her request.

"I am interested in obtaining any information on athletic training techniques that my fellow trainers have found successful in working with female athletes. The areas that I am interested in are:

1. Incidence of injuries among female athletes.
2. Common injuries incurred by female athletes.
3. Treatment techniques used on female athletes or modified for them.
4. Taping techniques used on female athletes or modified for them.
5. Rehabilitation programs for female athletes.
6. Plans for improvised equipment that is inexpensive and could be included in a women's training room.

Anyone who submits useful information will be given credit in the thesis. Information should be sent to me at the Department of Physical Education for Women, University of Iowa, Iowa City, Iowa 52240."

OVER 700 CROWD ABOARD

Here is a shot from the Becky Thatcher. This one looks down the Mississippi as over 700 hungry Trainers and their families come aboard for the Cramer Sunday night get acquainted party.

This wonderful time preluded the 1972 NATA Convention in St. Louis last June.

The Riverfront facilities were just excellent for this ever growing annual meeting. Fortunately all Trainers, Doctors, Exhibitors and their families could be housed close to the headquarters — hotel - Stouffer's Riverfront Inn.

The quality of the program was excellent and is improving every year as the attendance grows. It was gratifying to see so many university student trainers in attendance and planning their future in this great professional occupation.