Greetings and welcome to the Next Level Newsletter, Volume II, Issue XI. The end of season extravaganza!

Lots to talk about in this issue, so straight to athlete news:

- Steve Vaughn PRs at both the Florida Challenge Half & the Founders Day 10k
- Stephen Medeiros PRs at the Florida Challenge Half
- Jeff Brady PRs at both the Florida Challenge Half & the Founders Day 10k
- Kathy Larkin PRs at the Autumn Breeze 5k, winning the AG
- Candice Pulliam PRs at both the Howey-in-the-Hills Half-Marathon & Miami Man Half-Iron
- Jerry Gisclair cruises in for his first IM, Ironman Florida, in 10:43
- Alex Jones takes 9th AG at his first IM, Ironman Florida, in 10:37
- Jay Small knocks off his first half-iron at the Miami Man
- Sean McFadden goes sub-2:20 for 5th AG and a PR at the Miami Man International
- Shawn Johnson takes 5th AG in his first half-iron at the Miami Man Half

Ultrafit Training and benefits:
Most of you know I've been in the process of joining Ultrafit. Last weekend I went through the initial training program with Joe Friel and Tom Manzi. I was the only coach being brought in at the time and it was quite valuable to me. Joe is the author of what I think is the best book on triathlon training – the Triathlete's Training Bible, among others. He's also built up a strong small business. He's intent on helping other coaches both improve their coaching ability and achieve sustainable operations. Tom Manzi is his lead trainer and a well-respected Ironman coach from New Jersey.

I'm now an Ultrafit Associate. The association has 34 coaches total and another valuable resource I've gained from this is the ability to tap into the collective knowledge whenever I may not know something (which rarely happens ;-)). Also get a direct line to Joe, which should come in handy. Future joint camp ventures galore.

Another benefit is a number of product sponsors. OSB Athletes will be receiving more information about what's available at a discount as you are now also an Ultrafit athlete. This includes Clifbar, Oakley, Infinit Nutrition, and Power-Tap, among others.

TrainingPeaks:
I'll be moving OSB athletes to this online training tool starting in December. There's no additional cost to you.

Paleo diet:
A number of you asked me to ask about the paleo diet. Contrary to popular belief, the athlete's paleo diet doesn't preclude bread and rice. What it does advocate is sensible eating habits and only eating starchy foods after longer training sessions. Here are the salient points about the paleo diet:

Ergogenic factors:
The paleo diet is high in branch chain amino acids via lean protein, which is necessary for muscle repair. This improves the anabolic process and decreases immuno suppression. You heal quicker and don't get sick as much when you eat your protein. Compared to a typical athlete diet of lots of carbs and starches, the paleo diet may contain 40x more amino acids.

Your body maintains a ph balance and only operates in a narrow range. Starches, grains, and dairy are net acid enhancing foods, whereas fruits and veggies are net alkaline enhancing. When your food is net acid enhancing, your body draws calcium from your bones or muscle to maintain ph balance. This isn't good. Exercise also increases the acidity. You can eat balanced meals so there is no net either way. Think about this recommendation: Eat your vegetables with every meal. How old were you when you first heard that? Spinach is the biggest alkaline enhancing, parmesan cheese is the biggest acid enhancing. So spinach pizza just might get you a few points. ☺

Normal carbohydrate foods are low in trace nutrients, while fruits, veggies, and lean proteins are highest in trace nutrients. Trace nutrients help your body do all sorts of wonderful things.

5 stages in the athlete's diet:
1 - Before training: simple carbohydrates or nothing before your workout
2 - During training: gels/sports/high carb drink during exercise
3 - Post-training, 30min: glucose and protein (fruit smoothie with whey protein)
4 - Post-training, as long as the workout lasted: carb up! Joe recommends yams or potatoes (they're veggies) but now's your chance to eat your carbs
5 - Until next workout: go paleo. Lots of fruits and veggies, lean protein (fish, chicken, buffalo, ostrich, venison), minimize the bread.

Now, this doesn't mean we all need to run out and change our diets tomorrow. Some of you are bound to already have good diets, and have never heard of 'the caveman diet'. My recommendation is to make a point of making smart choices on a daily basis, and you'll be surprised how easy it is to eat well. Instead of a burger from McDonald's, a chicken sandwich from home. Spinach with dinner. Skip the soda. You know the ice cream isn't any good. Toss out the beer.

Ok, tougher than I thought. ;)

That's your quick summary, for more info I'd recommend reading Joe's new book, the Paleo Diet for Athletes.

Bikes for sale:

OSB athletes are upgrading bikes. There is a 2002 58cm Cervelo P2k ($1400 OBO) and a 2003 Cervelo 54cm P3 ($2000) for sale. Email me for contact info.

OSB Powerstroke Triathlon Swim Clinic:
I'm running a 4 hour clinic on Saturday, December 10 at the National Training Center in Clermont, FL. We'll be learning the principles of Powerstroke, a term I coined to help describe the process of learning how to swim with more force, and then move onto more general discussions of nutrition, pacing, and equipment. You can check the OSB website or go to the active info page here.

OSB Athlete Roster:
It's almost full. I have just a couple spots left for the beginning of the 2006 season. Thanks to all of you who've trusted me to help you reach your goals over the years!

Injury corner with Dr. Sean McFadden
OSB Athlete who moonlights as an Orthopedic Surgeon

ANATOMY & FUNCTION

The ankle is a joint which is formed by the tibia and fibula (bones above the ankle in the foreleg) and the talus (below the ankle joint). The ankle joint allows for the upwards (dorsiflexion) and downwards (plantarflexion) motion. The end of the shin bone (tibia) forms the inner bony prominence of the ankle called the medial malleolus. The outer bony prominence is called the lateral malleolus and is formed by the small outer bone in the foreleg called the fibula. Stability of the joint comes from several factors:

- the unique structural arrangement of the bones forming the joint
- the surrounding ligaments.

Joint instability may develop after damage occurs to one or more of the bones surrounding the joint. This type of damage is termed a fracture. The joint may also become unstable when the surrounding ligaments are damaged.

On the lateral (outside) of the ankle is a complex of three ligaments. These three ligaments provide stability by attaching the lateral malleolus to the bones below the ankle joint (talus and calcaneus). They are the:

- anterior talo-fibular ligament (goes from the talus to the fibula)
- calcaneo-fibular ligament (goes from the calcaneus to the fibula)
- posterior talo-fibular ligament (goes from the talus to the fibula).

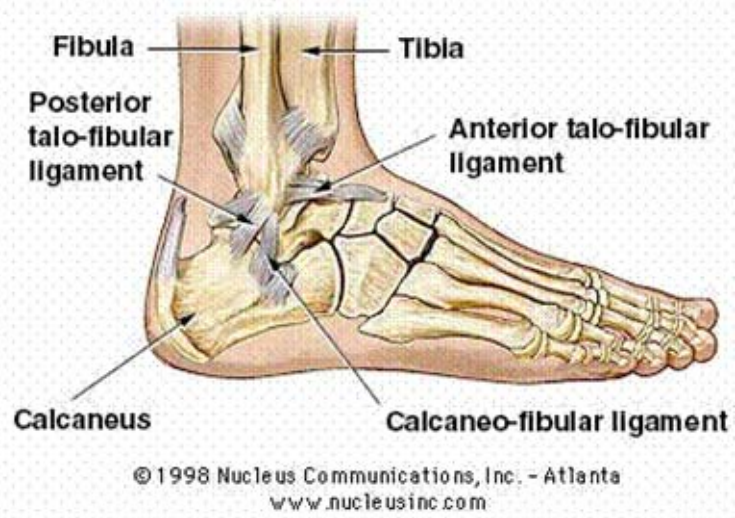

***Figure 1*: Lateral (Side) View of Right Foot**

On the medial (inside) of the ankle is the deltoid ligament complex which goes from the medial malleolus of the tibia to the talus.

SPRAIN

A joint is formed where the bones come together. The bones are held together by tissue called ligaments. The ligaments allow for motion of the bone at the joint, but only within certain ranges of motion. Sprains occur when the ligaments are stretched more then normal. This results in a partial tear or complete tear of the ligament. This ligament damage results in the development of abnormal motion at the joint due to the loss of stability.

The term sprain merely indicates that a ligament has been damaged. Sprains are divided into several groups depending on the severity of damage to the involved ligament.

Grade I Sprain

A Grade I (First Degree) sprain is the most common and requires the least amount of treatment and recovery. The ligaments connecting the ankle bones are often over-stretched, and damaged microscopically, but not actually torn. The ligament damage has occurred without any significant instability developing.

Grade II Sprain

A Grade II (Second Degree) injury is more severe and indicates that the ligament has been more significantly damaged, but there is no significant instability. The ligaments are often partially torn.

Grade III Sprain

A Grade III (Third Degree) sprain is the most severe. This indicates that the ligament has been significantly damaged, and that instability has resulted. A grade III injury means that the ligament has been torn.

The lateral ligaments are the most commonly injured. On the lateral side, the ligaments are typically damaged in a direction that goes from the front to the back, with the most severe injury being in the front (anterior) and the least severe being in the back (posterior). Therefore, the most commonly damaged

ligament is the anterior talo-fibular ligament and the least commonly damaged is the posterior talofibular ligament.

The sprain occurs when the ankle is turned unexpectedly in any direction that is further than he ligaments are able to tolerate. Typically, the sprain occurs with running, jumping, sharp direction changes, or stepping on uneven ground. The risk factors for having an ankle sprain include, uneven ground, previous untreated ankle injuries, being overweight, or using poorly fitting or worn out shoes.

DIAGNOSIS

Diagnosis of the injury is determined by examination of the location of the bruising (ecchymosis), swelling, and tenderness. It is also necessary to perform stress testing of the ligaments to determine whether the ligament has been torn. Stress testing of the ligaments is done by pushing on the ankle and attempting to determine if there is any abnormal motion at the joint which would indicate that a ligament has been torn. In addition, x-rays are often performed to check for the possibility of a chipped bone or fracture.

TREATMENT

Depending on the severity of the sprain, treatment may range from simply wearing a supportive brace, to using a walking cast, or even having the ankle operated on. The type of treatment depends on several factors including severity of injury, presence of associated injuries, the routine stresses that are placed upon the ankle, and the general medical condition of the injured patient. At some point,

- **R**est,
- **I**ce,
- **C**ompression, and
- **E**levation

(RICE) is used in the treatment program. In addition anti-inflammatories are used to help with the swelling and pain. As the healing progresses, the exercises that may be involved include range of motion exercises, strengthening exercises, and exercises developed to restore balance and agility.

Each injury is different and the time to return to full activity depends upon the severity of the injury and the restoration of motion and strength. As a general rule, the minimum time required for satisfactory healing is 6 weeks.

RESIDUAL ANKLE INSTABILITY

Occasionally, when the ligaments heal, they are weaker or looser then prior to the injury. This results in an ankle that is more likely to be unstable and twist more easily. When this happens, PT often allows the adjacent muscles to strengthen and stabilize that joint. Sometimes, it is necessary to wear a brace when walking on uneven ground or during sports to support the ankle. Rarely, it is necessary to surgically reconstruct the ligaments. However, when it does become necessary to reconstruct the torn ligaments, the reconstruction may be

done in several ways. One of the methods of reconstruction involves harvesting a portion of the peronus brevis tendon at the lateral aspect of the ankle, and then placing several drill holes around the bones of the ankle. The harvested tendon is then passed through the drill holes to reconstruct the damaged ligaments. Post operatively, a short leg cast is usually applied for approximately 6 weeks. Following this, physical therapy is initiated to rehabilitate the ankle.

Dr. Sean McFadden is an orthopedic surgeon with Atlas Orthopedic and Sports Medicine in Orlando, FL. The office has recently added athletic massage therapy. If you have any questions about sports injury or massage therapy, give Sean a call at 407 381-8441.

That's all for this time around, see you on the road!

Enjoy your sport,
Marty Gaal
One Step Beyond Multisport
407.256.2658
www.osbmultisport.com
A Joe Friel's Ultrafit Associate
Newsletter archive