NIKE INDOOR NATIONALS 2007

Sparky's Self-Care Tips for Athletes and Other Humans

In Sports it ALWAYS comes down to
Injury Prevention and Improved Performance.

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COMMON INJURIES
PREVENTION AND CARE
HYDRATION
HEAT AND ICE
WARM-UP/WARM-DOWN
STRETCHES
NUTRITION
PREPARATION AND ATTITUDE

THE MOST COMMON INJURIES ARE:

- Achilles Tendonitis
- ITB strain
- Shin splints
- Hamstring/groin/Low back
- Patellar Tendonitis
- Plantar fasciitis
- Runner's Knee

HOW TO RECOGNIZE POTENTIAL INJURY:

- Fatigue
- Lack of Flexibility
- Alignment
- Gait Issues
- Arm swinging
- Pronation
- Weakness in the core
- Focus

PREVENTITIVE MEASURES:

- Warm Up
- Stretch
- Ice Bath/Icing
- Cold Water effusion
- Regular Chiropractic
- Muscular Therapy

REHABILITATION

- Patience
- Perseverance
- Persistence
- Personal Responsibility

COMMON INJURIES AND HOW TO SEE THEM COMING

Achilles Tendonitis

1. Abnormal foot strike in push off
2 Too tight calf muscles

Iliotibial Band Strain (ITB)

1. Running on banked surface causing downhill leg to bend inward
2. Inadequate Warm up or Cool Down
3. Excessive distances
4. Increasing mileage too quickly

Shin splints

1. Overtraining
2. Inadequate support in shoes
3. Inadequate stretching of calf muscles post-run

Hamstring/groin/low-back

1. Lack of flexibility
2. Weak medial quad
3. Leg length differences
4. Inadequate warm-up

Patellar Tendonitis

1. Overuse
2. Too much, too soon
3. Pain is felt directly over the knee

Plantar Fasciitis

1. Abnormal motion of the foot (excessive pronation)
2. Too tight calf muscles

Ankle Sprains

1. Lack of focus or attention

HYDRATION

1% loss of body weight (.75-1litre) can create a reduction in PERFORMANCE.

EARLY Symptoms of DEHYDRATION:

1. HEADACHE
2. DRY EYES
3. DROWSINESS
4. LOSS OF CONCENTRATION AND
5. IRRITABILITY

2-3% loss results in SERIOUS PERFORMANCE INHIBITION.

If you are sitting around in an air-conditioned room all day doing nothing physical, you lose enough water to warrant 8-9 8 oz. glasses per day!!!

A word on **HYPONATREMIA (low sodium).** This is at the opposite end of the spectrum from dehydration. When water intake exceeds fluid loss from sweating, a condition known as hyponatremia occurs. This is typically seen in distance runners or those who exceed 60 minutes of exercise who either try to "hydration load" just prior to their event or use only water to rehydrate during their event. During prolonged exercise, a sports drink (water, carbs, electrolytes) is recommended in order to minimize the chances of hyponatremia. The URINE TEST is a good predictor of hydration. A clear, water-colored urine indicates too much fluid. Dark urine — the color of iced-tea — indicates fluid intake is needed. A nice lemonade-colored urine is "the bomb" (I am a parent of teenagers – give me a break). Listen to your body. If you are thirsty, then drink. If not, don't. If offered fluid at a water station during a road race, only you can answer the question. A cup of water will never cause harm. It's the continued, excessive fluid intake despite lack of thirst that one wants to avoid.

Symptoms of HYPONATREMIA:

1. Nausea
2. Confusion
3. Muscle weakness

Severe symptoms of HYPONATREMIA:

1. Seizures
2. Coma and even death

Reminder: drink your water over time and don't forget your electrolytes!

HYDRATION TIPS:

1. Start each training session well hydrated. No iced-tea urine; it should look more like lemonade than apple juice.
2. Calculate sweat losses by measuring body weight before and after training sessions to determine how much fluid you have lost and therefore will need to return to baseline. Weigh yourself in the nude.
3. Limit fluid losses to less than 1-2% of body weight.
4. Don't drink so much that you actually gain weight during exercise.
5. Sports drinks provide both carbs, water and electrolytes, and are useful for intense exercise that lasts longer than about an hour.
6. Plan and practice drinking strategies during training sessions.

BRINGING THE LEGS (AND ARMS) "BACK" TIPS:

Here's a great tip for bringing the legs back. I find that this also works for throwers and pole-vaulters in bringing the arms "back" and getting good rest in between events.

USE VERY COLD WATER: A garden hose or removable shower head or in a pinch, improvise in the shower, it still works! Start by running the cold water from the outside of your right pinky toe up the outside of your leg to the hip and then twice around your

buttock and down the inside of your leg (including the front of the quad) to the big toe. Repeat twice on each leg.

You can do the same with the arms starting with the right pinky and running up around the shoulder and down the inside of the arm to the thumb.

EPSOM SALT BATH: Using good old-fashioned Epsom salts after a hard workout or hard day's competing is great for sore muscles (and the psyche). The main thing is not to have the bath be too HOT. You should be able to get right into the tub, in other words, at body temperature. When the water is TOO HOT you sap your strength. If you don't have Epsom salts, just use table salt and baking soda combined (1/2 cup of each).

FOR MAXIMUM EFFECT: finish up with a cold shower; this will flush the muscles and help you rest.

FOR TRAINING: If it is recommended an average person who does no exercise needs 8 glasses of water MINIMUM per day, what would your guess be for an athlete?

Electrolyte replacement drinks are necessary but should not replace your WATER INTAKE. I would say one PowerAde to four waters. If you are serious about sports, you do not drink any soft drinks. That means NO COKE or Red Bull, Mountain Dew, JOLT or whatever soft drink you are in to, that includes "sweet tea" or Snapple. Take care of the machine and it will perform for you.

FOR COMPETITION: Hydrating ahead of time is the best method for preparing to compete. Remember the urine color test. In other words, take in the fluid the week of the competition and get your body ready for competing. When you feel your thirst, you should drink. But even if you don't feel thirst, you should still have some fluids. Staying hydrated DURING competition is also CRITICAL — remember what was said about preventing hyponatremia.

HEAT and ICE

What are the indications for applying heat vs. cold for strain, sprain, or other un-complicated types of injury?

When should dry vs. wet forms of each be used?
There is always a lot of controversy around the subject of Heat as in, what kind of heat to use, how often, how much and when. I always say be careful with heat. Don't expect too much from it and above all, do not expect it to replace a warm-up. In other words, **A RUB DOWN WITH BIOFREEZE or ICY HOT IS NOT A WARM-UP!!!**

If you are going to use heat, it is best when wet (as in a shower or bath). Heat tends to pool the blood as opposed to circulate it and that can cause a bit of swelling. A warm bath followed by ice (or a cold shower or ice bath) is the best method I know of to relax the muscles and prepare for rest.

ICE

Ice reduces pain via direct cooling of nerve endings and decreases muscle spasm. Swelling is reduced as blood vessels are constricted and therefore, bleeding into an injured area is limited. During the ACUTE phase of injury (24-48 hours) — pain, muscle spasm, and swelling — it is advisable to use ICE.

R.I.C.E. (Rest, Ice, Compression, and Elevation) reduces swelling.

Ice directly applied to the skin through ice massage will increase the depth of penetration over using ice packs or ice compresses. The easiest way to give yourself an ice massage is to keep a supply of Dixie cups filled with water in the freezer for post workout ice massages. If it is handy it isn't such a hassle.

If you use an ice pack, the latest thought is to utilize the pack for 10 minutes on, ten minutes off over a period of between 30 and 40 minutes to maximize the benefits.

HEAT

With the exception of decreasing the pain and muscle spasm, heat has the opposite effect of ice. It promotes blood flow and increases the potential for swelling and should be avoided during the acute phase of injury.

In the SUB-ACUTE phase or CHRONIC phase, a combination of Heat and Ice would increase blood flow to the area and continue the flushing of the effected tissue.

For deepest penetration: Ultra-sound and moist heat.

THE WARM-UP / WARM-DOWN

The Warm-up is Critical to Performance. The struggle to find sufficient warm-up time will pay off in developing sport-specific skills, warming up the muscles and reducing tension. Loose muscles are more efficient. Warmed-up muscles contract more effectively and are able to move through a full range of motion reducing the risk of injury.

The fifteen minutes you spend warming up is more important to your workout than the workout itself. The purpose of the warm-up is to increase the body's core temperature through dynamic movements. Dynamic movements increase the flow of blood and oxygen to working muscles and stimulate muscle firing. The warm-up is the key to flexibility, to remaining injury free and to longevity in your sport.

WHAT IS THE WARM-UP?

A warm-up gets the body warm enough to commit to heavy exertion. It warms up the core and prepares the body for more vigorous activity. Warmed-up muscles are less prone to soreness; and most important, warming up decreases the risk of overuse injuries such as patellar tendonitis.

GENERAL WARM-UP begins with a 3-minute light jog or skipping rope, followed by short static stretches (hold stretches) for 5 minutes to increase flexibility and range of motion around a joint. Do the stretches STANDING UP, followed by dynamic stretches for 3 minutes increasing the core temperature and stimulating neural function, and finishing with more dynamic speed and movement drills for 5 minutes for balance and timing while the nerves are fresh. This progression increases preparedness and provides the transition from a resting to a competitive state.

START WITH THE STATIC STRETCHES:

Hamstring stretch: straddle position
Side Lunge Stretch
ITB Stretch
Forward Lunge Stretch
Groin Stretch
Quad Stretch
Calf Stretch
Lat Stretch
Partner Chest Stretch

MY FAVORITE LUNGE: the Walking Lunge.

This stretches the larger leg and gluteus muscles.

Feet together, Lunge first with Right leg.
Bring Left foot alongside the Right.
Lunge with the Left leg.
Do 8-10 per leg.

Knee or hip and lunges really get the body totally WARM enough to begin the workout. Not only do they warm up the body, they also stretch and strengthen the legs.

DYANAMIC RANGE OF MOTION DRILLS FOR WARM-UP
These prepare the nervous system for more vigorous activity.

Side Leg Swing
Forward-Backward Swing
Knee-Ankle Swivel
Small Arm Circles
Full Arm Circles
Trunk Twisting

Dynamic Speed and Movement Drills

Strides
Basketball Chasse
Carioca
High-Knees
Skipping
Heels to the Butt
High Kicks

COOL DOWN/WARM-DOWN
The Warm-Down consists of jogging and walking until the body stops sweating. Walking backwards is a good way to really stretch out the calves.

This is the last critical and essential element of any workout. It helps you to recover and get ready physically for the next training session. Do not rush this opportunity to stretch fully.

STRETCHING

As I have stated before there is some stretching done during the warm-up (about 8 minutes worth). The real stretch should come AFTER your workout or competition when you are thoroughly warmed up and ready to cool down. It is best done when the muscles are hot and fatigued and more able to relax.

FASCIA
WHAT is Fascia and why is it so important to understand it?
Fascia is body wide and body deep. Superficially it allows your skin free movement. It envelopes, invests and separates every muscle in your body. The fascial net therefore maintains its shape statically when no forces other than gravity are exerted on it and dynamically when all kinds of forces are exerted on it.

Here is where it gets important: It does not burst or break apart but goes with the flow efficiently, distributing forces that would compress (stress) or pull (strain) it apart.

The body is programmed to deposit collagen in areas under repetitive stress and strain (scar tissue). It is an automatic reaction to stress and strain. Scar tissue build-up is what causes so much “tightness” and can lead to real injuries.

REGULAR STRETCHING IS THE ANTIDOTE.
Regular stretching creates length and space where the collagen fibers have shortened and deposited themselves in a thick and disorganized fashion; what you think of as “KNOTS.”

The way this shows up most often is in INFLEXIBILITY AND TIGHTNESS!!! The causes of inflexibility or tightness are simple muscle tension from poor posture, compensation for injury or positions an athlete repeatedly assumes for sport.

NUTRITION

WHAT TO EAT

There are so many great sources of information on nutrition out there today that I will only spend a moment on this subject. This is a subject dear to my heart and I could go on for pages on this alone. I will throw in a couple of things that might get you started at least thinking about what to put in your tank every day!

I encourage athletes to eat more grain and less pasta, more organic, less “supermarket”. If you take supplements, know what you are buying. Protein Drink? Use Whey Protein.

NO CAFFEINE
NO SOFT DRINKS
NO FAST FOOD
READ THE LABEL!!!!!

Juice I recommend? Pure Cranberry mixed with water in the amount of 4 oz. of cranberry to 32 oz. of water. Thirst quenching.

Elite athletes tend to need more protein in their diets as it helps rebuild tissue after intense exercise. The standard diet is 40-30-30 or 40% protein and 30% carbohydrate and 30% fat. That is subjective however, and varies with the individual.

GOOD SOURCES OF PROTEIN: lean meat, poultry, fish, and eggs (I recommend at least 2 eggs per day — yes, the whole egg).

GOOD SOURCES OF CARBOHYDRATE: green leafy vegetables, spinach, kale, and collard greens.

GRAINS: brown rice, 10-grain bread (try Ezekiel brand), and steel-cut oatmeal.
FRUIT: papaya, melon, apples, oranges, kiwi or fruits and berries you find in season. Frozen organic fruits are usually more beneficial for you than fruit bought out of season.

GOOD SOURCES OF FAT: Olive oil, flax seed oil, and almond butter.

WHEN TO EAT

DO NOT experiment with when or what to eat/drink on race day. Your tolerance to foods and the timing of your meals/snacks should be well planned according to what has worked in the past — what sits well with you.

Generally speaking it takes 3-4 hours to digest a large meal, 2-3 hours for a smaller meal, 1-2 hours for a liquid meal and 0-1 for a liquid/small snack. The stomach digests liquids faster than solids; therefore a liquid meal is better tolerated the closer you are to competition. If you have more time, then a pre-event meal is possible — one that is high in carbs and easy to digest. No “magic meal” is available to compensate for poor training and diet.

After the competition, the first 2 hours are critical to replenishing glycogen stores. A combination of carbs and protein in a 4-to-1 ratio (4 grams of carbs for every 1 gram of protein) provides the best method of restoring glycogen. Waiting more than 2 hours provides 50% less glycogen storage and adding more protein is detrimental in that it slows rehydration and glycogen replenishment. Some products on the market with this ratio include Endurox R4, Accelerade and Powerbar. This ratio can be created by adding protein powder to your favorite gel or drink — many of which contain little to no protein.

PREPARATION AND ATTITUDE

For optimal success, an athlete prepares. It is no different than studying and doing homework in order to achieve classroom success. The principles of success are universal.

1. **Goal Setting**: Set your goals. Write them down, keep a log and a journal. Look back to see where you've been in order to get where you want to go. Put your goals on an Index Card. List them in order of importance. Chunk it down and make each goal achievable and realistic. Read this list before you go to sleep OUT LOUD and the first thing every morning. Keep your goals where you can see them several times a day. Soon they will be memorized; and just knowing your list is in your wallet when you open it will remind you of them and that will help you maintain your focus.

Give me a stock clerk with a goal and I'll give you a man who will make history.
Give me a man with no goals and I'll give you a stock clerk.
– J.C. PENNY

The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it
– MICHELANGELO

2. **Prepare:** If you don't have a state-of-the-art, topnotch cafeteria at your school, you might want to consider making your lunch and packing your snacks for school/practice. Pack your school bag in the evening; get your gear together ahead of time. It is part of the process of making yourself accountable and responsible for your success. Putting your kit together calms you down and creates a space for you to get clear and focused. It feels good to be ready ahead of time. It is part of creating your outcome. More importantly, it helps you SLEEP WELL getting the rest you NEED to be competitive. In my experience, the gifted athlete is well prepared, independent, self-directed and motivated. He/she has what is required with them in their gym bag, their book bag as far as nutrition and gear are concerned. What you choose to consistently place in your heart and soul as you prepare ultimately determines whether you are victorious.

I'm a great believer in luck and I find the harder I work, the more I have of it.
– THOMAS JEFFERSON

You can't build a reputation on what you are going to do.
– HENRY FORD

Dictionary is the only place that success comes before work.
Hard work is the price we must pay for success.
I think you can accomplish anything if you're willing to pay the price.
– VINCE LOMBARDI

Opportunity is missed by most because it is dressed in overalls and looks like work.
– THOMAS ALVA EDISON

3. **POSITIVE ATTITUDE:** With high levels of competition comes personal responsibility and accountability. A true champion has a positive attitude. He or she faces fear with a measure of grace, with respect for fellow competitors and is quite often a leader not only because he or she is the best athlete on the team but because he or she is the most prepared, humble and generous. Win or lose the true champion is considerate of his or her fellow competitor and offers congratulations, thanks the officials and acknowledges his or her coaches.

The price of greatness is responsibility.
– WINSTON CHURCHILL

Everyone experiences disappointing meets; it can be a national or state championship or a local meet. It is what you learn from your defeats and your disappointments that will strengthen your resolve to do better next time. It is the attitude of seeing the future and brushing off the disappointment that will make you a champion. Taking a positive attitude, persevering to compete again, being patient, working harder, training smarter, getting advice, being respectful and keeping your cool will do more for your athletic career than all the talent you naturally possess.

I often use a technique to help an athlete to brush off a disappointing race or to calm down between heats in order to keep from anchoring on to a bad race or a slow heat. It is basically what is called “imaging” only in my case the athlete is on the table in the training room. While they are focusing on their breathing and getting the image of the best race they ever ran in their head, I focus on working on their shoulders and neck. Sometimes I place one hand on the sternum to help bring the heart-rate down. I talk them through the final moments of the race, as they imagine looking up at their time coming across the finish line. The athlete repeats in his mind over and over, “I am a champion.” When I am done getting him ready, I have the athlete go out to the practice track or anywhere out of the training room and I have him shout out loud, “I AM A CHAMPION” as he warms up for the next event. I have had some amazing results with this one. You don’t need me there. Do this with a teammate, someone you trust, and see what happens!

One last paragraph or two on attitude if you haven’t had enough!

Being personally responsible for your choices will directly affect the outcomes of those choices. It is often the hardest component of reaching one's goals. In other words, only you are to blame for your mistakes. Only you are responsible for your performance. Only you are responsible for making it to the track on time. Only you are responsible for remembering your spikes. Only you are to blame if your hamstrings are too tight because you didn't have time to warm up. Only you are accountable for your conduct. The list goes on and on. At the same time it takes a lot of concentrated effort on the part of a lot of people to make a champion. An athlete with a great attitude towards the work that is required and the acknowledgement of the "team approach" to achieving his or her goals will succeed on and off the track.

It is amazing what you can accomplish if you do not care who gets the credit.
– HARRY S. TRUMAN

Be grateful for your gifts, be gracious to your opponents, be thankful for the help and be considerate of the time and effort that so many people have given you on your way to the top. Train with integrity, clean up after yourself, and look out for your teammates. Be a good steward of your sport. If you love what you do, extend a helping hand to someone new to the team so that they may love it too. Your sport is only as good as those who participate in it. If you want to achieve greatness, be great. How you do anything is how you do everything.

Work is either fun or drudgery. It depends on your attitude. I like fun.
– COLLEEN C. BARRETT

Don't measure yourself by what you have accomplished, but by what you should have accomplished with your ability.
– JOHN WOODEN

Winning is a habit. Unfortunately, so is losing.
– VINCE LOMBARDI

Nobody who ever gave his best regretted it.
– GEORGE HALAS

We are continually what we do. Excellence therefore is a habit, not an accident.
– ARISTOTLE