

FOOTBALL HEALTH PREPARATION TIPS FOR OCFOA OFFICIALS

KIRK VAN ROOYAN, M.D.

I. CONDITIONING AND NUTRITION

Most football officials underestimate the physiologic stress of working games and the importance of reasonable physical fitness. A recent study by NFHS found that over 50% of the officials had significant health risk factors - high blood pressure, elevated cholesterol, obesity, and abnormal cardiac stress tests. Medical evaluation to identify and correct/improve these risks, conscientious and proper preseason fitness training, and scientifically sound calorie-restricted diet programs to reduce body weight are no less important than knowledge of rules and mechanics, but they are too often neglected.

II. FLUIDS AND HYDRATION

This is an overlooked aspect of quality officiating, especially considering that a good part of our season occurs in hot weather and often involves daytime games. The guidelines are simple for both the **types of fluids** and their **use**:

1. **The ideal hydration fluid** contains salt (sodium) & potassium and no more than 6-8% carbohydrate(CHO) - e.g. Gatorade, Powerade, etc. **Human sweat is not water, and drinking only water is not satisfactory fluid replacement over a period of more than one hour of exertion.** Drinks with high CHO content - fruit juice, sodas, sports "gels"-have much slower gastric emptying and destabilize blood glucose, so sports drinks with **reduced** (Gatorade G2) or **no** (Powerade Zero) CHO are preferable to those with large amounts. Liquids containing caffeine, alcohol(!), and carbonation cause harmful increased urination and dehydration.
2. In the 3 hours prior to taking the field, drink **at least 8-12 ounces(oz) – 1-1.5** standard glasses-of **proper** fluids (varies somewhat depending on body size) **per hour**. This pregame "loading" is important and justifies any inconvenience; **an additional 2 hours** should probably be added for afternoon games, especially in very hot weather.
3. While officiating, drink an **average** of one 8 oz glass of **proper** fluids for each 30 minutes of field activity. This will obviously have to be done at the half or during time-outs, but is even more important than "loading". **Always drink beyond your thirst (if you're thirsty, you're already dehydrated).**
4. Post-game re-hydration is less critical, and some of our members already have well-established regimens! Ideally, you should weigh yourself before the game(locker rooms often have scales) and then afterwards, and drink 2-3 glasses of **proper** fluids for each pound of weight lost prior to going to bed. As an alternative to weighing, you can monitor the color of your urine; if it is barely or light yellow, you are OK; if it is 'apple juice' or darker, you need additional fluids until it gets lighter. If you go more than four hours without urinating and/or there is a very small amount, you are also dehydrated.

SUMMARY: 1 glass (8 oz) per hour 3-5 hours before game; 1 glass per 1/2 hour during game of proper hydrating fluid; 2-3 glasses for each pound lost after games, monitor color and volume of urine.

Why is all this important? Depending on severity, dehydration results in premature fatigue, muscle cramps/strains, diminished concentration, increased body temperature, weakness/lethargy, and nausea. In severe cases it can cause unconsciousness, shock, and death. The hassle of arranging for and consuming adequate volumes of proper fluids as

part of your officiating is thus far outweighed by the benefits.

III. STRETCHING AND WARMUP

A significant portion of the minor injuries suffered by officials--muscle pulls, joint strains, etc-- and the pain associated with them can be prevented by utilizing simple stretching and warmup exercises before working games. While these could be done before leaving for the game, they are **most beneficial if done just before--in the locker room during your pregame--or soon after taking the field.**

The **stretching** diagrams below are mostly self-explanatory; it is important to be **aggressive about the amount of stretch, to hold the stretch for a count of 5 each time, and to do at least 5 reps of each stretch for each leg.** The hamstring stretch can be done with the foot on the ground and pulling up on the end of the foot, and the quadriceps stretch can be done by a fellow official if there is a knee flexibility limit. Stretches for the arms and neck are certainly encouraged when appropriate, but **the focus here is on the priority muscle groups for football officiating and a regimen that can be done in a short time frame.**

The recommended **warmup regimen** is three to five 20 yard jogs running both forward and sidestepping, followed by two to three 10 yard sprints **before the game**, and one-half of this total **prior to the second half** These should obviously be done after the stretches. More "reps" may be needed when the weather is colder.

Whether before, during, or between games, stretching and warm-ups should be considered as integral a part of the pre-game as the referee's instructions. The decision to conduct them individually or as a group (under the direction of the referee), is a matter of crew/referee preference, but **the real issue is for officials to establish a routine and follow it before every game.** There is no question that a proper stretching and warm-up regimen contributes to both crew performance and individual well-being.

The use of over-the-counter (non-prescription) medications such as aspirin, Tylenol, or ibuprofen (Advil) before and after games can be beneficial for management of minor musculo-skeletal pain, but **ONLY if approved by your physician** since these can interact with other medications you take and/or have adverse side effects such as internal bleeding, liver, and heart problems. These drugs can reduce "aches & pains", but **are not a substitute for proper stretches and warmup, nor should they be overused.** Ace wraps, rubber sleeves and adhesive/sport tape to support areas of new or old injury can also be worthwhile, but proper technique/fit is important, and professional medical advice may be needed.

IV. WEIGHT MANAGEMENT

There is unfortunately no easy/magic way to lose weight, but there are some simple and effective techniques that, if ALL are adhered to, will always produce results. While there is nothing wrong with Weight Watchers or NutriSystem—except maybe their cost—you can implement almost all of these measures on your own:

1.Reduce the portions/amount of food: this critical decrease can be done gradually over 7-14 days, but it is important to be **consistent & diligent** about this, aiming for a **30-50% overall reduction** and then **maintaining it.** The stomach actually shrinks in size and chemical changes that decrease your hunger occur during this time period, so the 'secret' is to **stay with it (see 'Supplements' below).**

2. **Increase the frequency of meals:** eating small amounts of food **four(4)** times daily minimizes severe hunger and its associated overeating, and stabilizes blood sugar and other chemicals so you don't feel tired/weak. It is important to make sure that the **total amount of food and number of calories** consumed in all four(4) meals is still **30-50% less than** what you were previously eating in three.

3. **Optimize time and spacing of meals:** as much as possible within the limits of your daily activities always try to eat the four(4) small meals **between 7 am and 6-7 pm** and to have **equal time intervals** between the first and last meal. This means don't wait until several hours after you wake up to eat your first meal. Depending on what time you go to bed, don't eat anything **closer than 3-4 hours** to that time; calories consumed within 3-4 hours of bedtime are poorly metabolized and thus **work against** weight loss. Make every effort to space the four meals **evenly apart**. If you work evenings or nights, try to establish/maintain these same timing and spacing intervals relative to your particular sleep/awake hours.

4. **Eat Healthy:** the **types** of foods you eat really **do** impact weight loss, but you do not have to consult a dietitian to avoid high-sugar or unhealthy-fat foods and get adequate protein. Many types of nuts, fruits, and cereals have 'good' types of fats, carbs, and fiber; these should be part of a healthy diet, you just need to **identify the right ones**. Nutritional and calorie count manuals are available online or at a bookstore, and you should always read the food labels at the grocery store before buying items. A lot of this is just common sense, but it also requires **commitment** to staying away from 'the bad stuff' as much as possible.

5. **'Supplements':** even if you properly apply **1. to 4.** above, there will always be 'break-through hunger', particularly early on; while ideally handled with increased doses of willpower, the negative effects of these potential setbacks can often be offset by drinking small amounts of diet juice or soda and/or eating 'minipacks' of vegetables or healthy nuts. This 'stop-gap' method can, if not overused, deal effectively with these inevitable physical and emotional cravings.

V. EXERCISE!!

Not an absolute requirement, but it **greatly speeds up** the weight reduction process, and the increased fitness pays great dividends on the field as well. High intensity or complex regimens are not necessary, and limitations such as moderate arthritic stiffness or pain can be worked around by using low-impact methods such as bicycling or water exercise. **Frequent, less strenuous** exercise produces less body stress, burns almost as many calories, and is easier to fit into your daily schedule. The secret, once again, is **consistency and diligence**, as well as a good balance between aerobic conditioning and improved strength/flexibility.

Adherence to the above regimen and **starting early--3 to 4 months before the season begins**—will produce surprisingly fast decreases in appetite and the number readings on your scale; it can result in **at least** a 15 and as much as a 30 pound weight loss. This is called **The Turtle Technique—slow and steady wins the race**, and it is highly recommended as the least onerous way to improve not only your waistline and self-esteem but, more importantly, your medical health and longevity. Obviously, some accommodations have to be made for factors such as diabetes and heart/lung conditions, but these chronic problems will often be improved by proper use of this program. The hope is that these guidelines will be of use to OCFOA members, adding to the quality of their officiating experience and overall wellness.

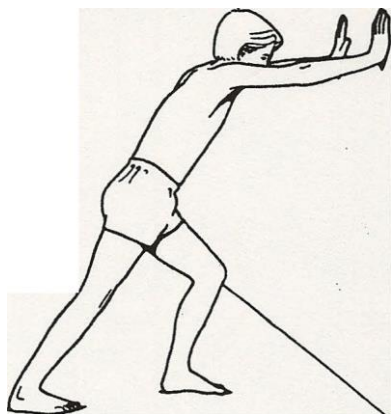
VII.

HIP and KNEE
- Gastroc Stretch

Keeping back leg straight, with heel on floor and turned slightly outward, lean into wall until a stretch is felt in calf.

Hold 5 seconds.
Repeat 5-10 times.

Copyright VH11990



HIP & KNEE
Soleus stretch

Keeping back leg slightly bent, with heel on floor and turned slightly outward, lean into wall until a stretch is felt in calf.

Hold 5 seconds.
Repeat 5-10 times.

Copyright VH11990



HIP and KNEE
Standing Hamstring Stretch



Place foot on stool. Slowly lean forward reaching down shin until a stretch is felt in back of thigh.

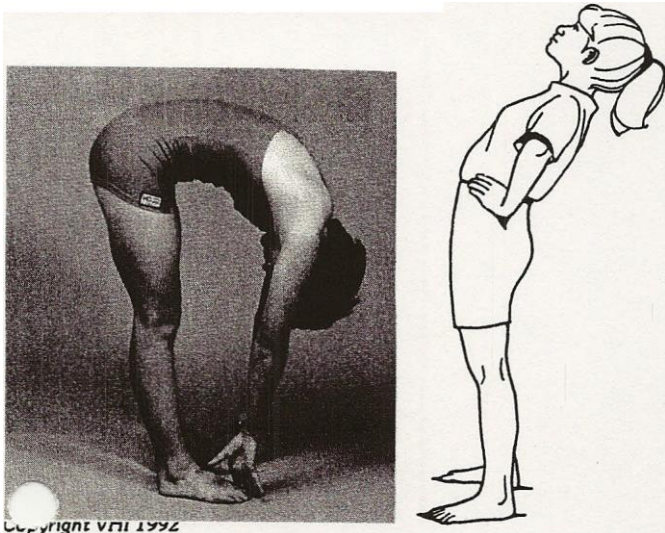
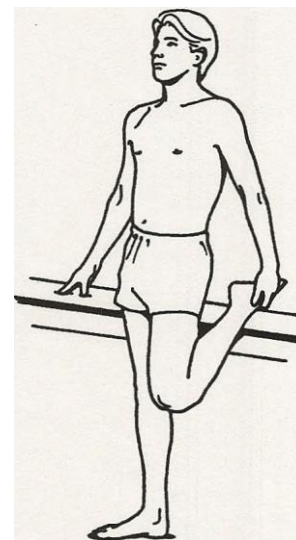
Hold 5 seconds. Repeat 5-10 times.

HIP and KNEE
Stretching Quadriceps

Pull heel toward buttock
Stretch until a stretch is felt in front of thigh.

Hold 5 seconds.
Repeat 5-10 times.

Copyright VH11990



Copyright VH11990

VIII.

BACK Standing
Backward Bend
KNEE
Hip Flexor Stretch

Slowly push pelvis downward while slightly arching back until a stretch is felt on front of hip.
Hold 5 seconds. Repeat 5-10 times.

Copyright VH11990

