



October E~NEWSLETTER

This month's E-newsletter includes:-

- **Upcoming events**
- **Your Life Your Challenge**
- **Website of the month**
- **Quote of the month**
- **Melbourne Marathon**
- **How to use a Heart Rate Monitor**
- **Clothing to help you look slimmer**
- **What is Inflammation?**

1. Upcoming Events

Looking for your next challenging event?

Visit www.coolrunning.com.au for future fun runs.

Oxfam Trailwalker – 11 – 13 April 2008

Over 600 teams of 4 will take part in 'Trailwalker' Melbourne on the weekend of 11-13 April 2008. Their challenge: to walk (or run!) 100km within 48 hours!

The 2008 trail will follow a similar route to 2007, starting at Jells Park in Wheelers Hill and finishing at Wesburn Park in the Yarra Valley.

Are you up for the challenge?

<http://www2.oxfam.org.au/trailwalker/melbourne/>

We already have 2 teams organised for this challenge and we are looking to put together a few more. It's all for a great cause!

If you'd like to register your interest, contact Scott Hollow at scott@xosize.com.au.

2. Your Life Your Challenge

KOKODA – THE EXPERIENCE OF A LIFETIME!

XOSIZE are currently planning a trip to walk the track in 2008 !!

What is the Kokoda Track ?

The **Kokoda Trail** is one of the world's great treks, linking the southern and northern coast of Papua New Guinea. It is a challenge to be enjoyed by the fit bushwalker.

The Kokoda Trail and Sogeri area have a history of bitter fighting between Australian and Japanese armies during the early days of the war in the Pacific in World War II. The 96 km Kokoda trail passes through rugged mountainous country of rainforest, jungles of fern, orchids, birds and clean mountain streams which tumble into steep valleys.

The unspoilt villages throughout the Kokoda Track will welcome you and the Koiari and Orokaiva people will greet you with smiles and tempt you with seasonal fruit and vegetables.

Some websites with more information:-

<http://www.kokodatrail.com.au/>

http://en.wikipedia.org/wiki/Kokoda_Track_Campaign

<http://www.kokoda.com.au/>

If you're up for this challenge, please contact Scott Hollow for more information.

3. Website of the month

Virtual Sports Injury Clinic - <http://www.sportsinjuryclinic.net/>

4. Quote of the Month

To succeed you need to find something to hold on to, something to motivate you, something to inspire you.

Tony Dorsett

5. Melbourne Marathon

Congrats to Rosie Horvat, Simon Senior in competing and completing the first marathon.

Check out what it takes with [Rosie's report](#).

6. How to use a heart rate monitor

By Steve Edwards

<http://www.howtobefit.com/how-to-use-heart-rate-monitor.htm>

Heart is the most important muscle in your body, and most of us are aware of the importance of getting enough cardiovascular exercise. Using a heart rate monitor can help assure that you are working your heart properly as you exercise. Like any muscle, the heart needs to be exercised, and serves as a barometer for the rest of your body by telling you how hard you are loading it during various functions. It circulates blood, rich in oxygen from breathing, from your lungs to your trunk and lower extremities. Monitoring your heart rate is the easiest way to keep yourself working in the right "zone," reducing your chance of injury and overtraining, and increasing the odds that you'll get the results you want.

Heart rate monitors can measure your cardiovascular and physiological stress during training sessions. They provide you with an accurate gauge of the intensity of an exercise, which is reflected in your heart rate. The harder you exercise, the higher the heart rate should go. When your heart rate changes, it's a sign that something is happening, which can be something good or something bad. In either case, having this information will allow you to properly react. By constantly monitoring your heart rate, you will learn to tell when your workouts are effective, when you are over or under-training, and even when you may be getting sick and need to back off.

The Basics

Heart rates are measured in beats per minute (bpm). Your resting heart rate indicates your basic fitness level and is defined by the number of times your heart beats per minute while your body is at rest. The more well conditioned your body, the less effort and fewer beats per minute it takes your heart to pump blood to your body at rest. Measure your resting heart rate immediately after awakening and before you get out of bed. Take these measurements for five consecutive days and find the average. This average is your actual resting heart rate. Resting heart rate is dependent on your living habits and a number of factors such as quality of sleep, stress level, and eating habits.

Your average heart rate is the number of times it beats in a certain period, like over the course of a workout.

Your maximum heart rate (Max HR) is the highest number of times your heart can contract in one minute. Max HR is the most useful tool to be used in determining training intensities, because it can be individually measured and predicted. Unfortunately, the only way to get a true accurate reading is to have an exercise test clinically administered. Without this option, you are forced to use a ballpark figure, which can be calculated using this formula:

Women: $226 - \text{your age} = \text{your age-adjusted Max HR}$

Men: $220 - \text{your age} = \text{your age-adjusted Max HR}$

For example, if you are a 30-year-old woman, your age-adjusted maximum heart rate is $226 - 30 \text{ years} = 196 \text{ bpm}$ (beats per minute). Keep in mind that these formulas apply only to adults and are not accurate. The generally accepted error in age-predicted formulas is ± 10 to 15 beats per minute, which is due to different inherited characteristics and exercise training. If you want to exercise/train at your most effective levels, your Max HR should be measured, but this formula will work fine for your immediate purposes, and self-knowledge will allow you to make the necessary adjustments.

Your anaerobic threshold is the physiological point during exercise at which muscles start using up more oxygen than the body can transport (the point where lactic acid accumulates and you get "pumped"). It's also worth noting that while you can train your max heart rate and your anaerobic threshold (so that they are always changing slightly), the actual numbers don't correspond to fitness versus another individual. Some people have naturally higher maximum heart rates than others.

A target zone is a heart rate range that guides your workout by keeping your intensity level between an upper and lower heart rate limit. There are various target zones that are suggested for an individual to follow that correspond with a specific exercise.

The Fat-Burning Zone. You'll notice the lack of something called the fat-burning zone in the table below. The reason for this is that it's misleading because people feel the need to stay in this low heart rate zone in order to burn fat. This is not even close to being true. This misnomer is based on your body being able to use a higher percentage of fat for fuel at low outputs. It is true, however, that your body will lose far more fat at higher outputs (more on this below).

Heart Zones

Zone Name	Percentage of Max HR	Perceived Exertion Difficulty
Z1 Healthy Heart Zone	50%-60%	2-5 (perceived exertion)
Z2 Temperate Zone	60%-70%	4-5 (perceived exertion)
Z3 Aerobic Zone	70%-80%	5-7 (perceived exertion)
Z4 Threshold Zone	80%-90%	7-9 (perceived exertion)
Z5 Redline Zone	90%-100%	9-10 (perceived exertion)

In the lower zones, or cruise zones as they are sometimes called, you can train for longer periods of time. But, as you move up to higher-intensity zones, you need to decrease the amount of time that you spend there, particularly in the top two (the Threshold and Redline Zones). To put it simply: you can walk farther than you can sprint, and overdoing it is nearly a guarantee of injuries or burnout.

Zones are relative. Your five heart rate zones are specific to your maximum heart rate, not anybody else's. With two runners, each maintaining a heart rate of 160 bpm, one might well be in their Z4 Threshold Zone and the other may be in their Z2 Temperate Zone.

Each heart zone burns a different number of calories per minute based on how fit you are:

- Zone 1 = 3-7 calories per minute
- Zone 2 = 7-12 calories per minute
- Zone 3 = 12-17 calories per minute
- Zone 4 = 17-20 calories per minute
- Zone 5 = 20+ calories per minute
- ?

Fat is burned differently in each of the heart zones. You'll burn a different ratio of fat to carbohydrates in each of the heart zones. And once you've crossed over the exercise intensity threshold called the "anaerobic threshold," you are burning no additional fat, though you still burn fat. That's because oxygen has to be present for fat to burn. If there's no additional oxygen present, there's no additional fat burned during this period. *However, don't confuse this with meaning that you won't lose body fat in higher zones.* Another factor that results from training in these zones is a reduction in body fat, such as an elevated metabolism over time caused by muscular breakdown and/or increased muscle mass, which raises the metabolism.

Relating to Your Workouts

Because of the example cited above, you want to do each workout to the maximum of your ability. This means that you don't back off so that your heart rate falls into a lower zone on purpose. The only exception is in our rare "doubles" routines, where one of your two workouts is supposed to be at "low to moderate intensity," meaning that you don't want to exceed Z2. But our programs are based on efficiency, and in most cases, intensity = efficiency. Heart rate zones are used to base training on when volume becomes a consideration. Remember, the higher the intensity, then less time you need to spend. Low-intensity outputs are important to train for high-duration activity and for recovery.

For many people who are not "hardcore" fitness enthusiasts, the concept of intensity to get results might not be clear. Your heart rate monitor will be a great tool to help you follow along and track your progress, and make sure you are working hard enough to get the cardiovascular and fat-burning results you want.

In general, you should see a pattern throughout the course of each workout. Most of us will find that our max heart rate and average heart rate will be higher in the workout at first. As you get into better shape and your neuromuscular coordination becomes more in tune with resistance training, this should change. You will be able to push harder while weight training and your cardiovascular shape will improve. Soon your max heart rate will be higher on the Sculpt days. If this isn't happening, then you probably aren't using enough weight. Your average heart rate overall should go slightly down the longer you do Sweat tapes and slightly up on Sculpt tapes. Besides what you see in the mirror, this is best way to see if you're making improvements in your health and fitness.

You will also learn that by tracking your progress, you'll be more in tune with external factors that are upsetting you. You will be able to tell when you are getting sick or overtraining by one of two ways. Either you won't be able to get your heart rate to maximums that you've seen prior, or your heart rate at rest will be too high. This is an indicator that something isn't quite right.

The best way to stay ahead of the game is by getting into the habit of checking your resting heart rate each morning before you get out of bed. As you get into shape, it should continually drop. If it reverses this pattern for more than a couple of days in a row, it's telling you that your body is stressed, which could be due to overtraining, the onset of an illness, or some other negative environmental impact. In any case, it's time to back off until your resting heart rate goes back down. So once you learn your body's patterns, you'll be able to anticipate your body's needs rather than just reacting to them.

Xosize offer a full range of Timex Heart Rate monitors to purchase

7. Clothing to help you look slimmer

By Wayne Mcgregor (and a few lady friends!)

If you are overweight, it can be frustrating trying to dress stylishly and still wear clothes that are flattering and comfortable. But there are tricks that you can play when it comes to your wardrobe that will give you the appearance of being longer and slimmer, while your clothes will be fashionable and comfortable. By learning to maximize your positives and minimize your not-so-positives, you will look and feel great!

- Choose separates in one solid color to create an outfit that will elongate the body, and provide a slimming effect.
- Black is always a good choice; it provides a slimming effect.
- Wear clothes that fit you. Clothing that is too loose adds bulk, and clothing that is too tight draws attention to your bulges.
- Find pieces that accentuate your positive features.
- Vertical stripes elongate and slim the body; horizontal strips widen the body.
- If your legs are heavier, choose a brightly colored top or necklace; it will draw attention away from your legs, and to your face.
- Shoulder pads and wide necklines on shirts and blouses will help give your body a balanced look. This is a great trick if you have wider hips.
- Avoid pleated pants, as well as pants with pockets. They draw attention to the midsection. Pants with narrow legs, a flat front, and side zippers are more flattering for fuller figures.
- Don't slouch! Good posture always makes you look taller and slimmer!

The trick to dressing a fuller figure is to not try to hide your body in volumes of loose material, and not to try to force your body into clothing that is just too small. But choosing well-fitting, tailored pieces you will feel more comfortable. The confidence that you exude when you feel good will make you look even greater!

8. Inflammation

What is inflammation?

The inflammatory process also called inflammation, is the body's response to injury, and the function of inflammation is to allow tissue healing. The inflammatory process is a chemical process, and no matter the source of injury, inflammation is the outcome. It is characterized by heat, redness, swelling and pain in the affected area. Often the body overdoes this inflammatory response, and certain steps can be taken to keep it under control.

Pharmaceutical anti-inflammatories

Non steroidal anti-inflammatories (NSAIDs)

This group of drugs includes aspirin, celebrex, voltaren, mobic, brufen and naprosyn.

"In spite of the widespread clinical use of NSAIDs, there are no convincing research data proving their effectiveness in the treatment of acute soft tissue injuries."¹ Common side effects of NSAIDs include gastrointestinal symptoms (heartburn, indigestion, stomach pain, nausea, stomach ulcers). There is current controversy suggesting a possible link between heart disease and the use of NSAIDs². A recent study suggested two commonly used NSAIDs (diclofenac and ibuprofen) may be associated with a higher risk of heart attack with long term use³. Concerns have also been raised that NSAIDs may even delay healing of injured tissues⁴



Corticosteroids

Corticosteroids such as cortisone, can be taken orally but is more commonly injected into the painful area. Their use is controversial due to the incidence of side effects:



- Injections into or around muscles and tendons can increase their chances of tearing and rupturing.
- Corticosteroids delay the growth and healing of damaged ligaments and muscles, thereby increasing recovery time.
- Caution must be taken when injections are given into the weight bearing joints (feet, ankles, knees, hips) due to the possibility of permanent damage to the joint.

The above risks are increased with multiple injections. Cortisone injections have a reputation of being a particularly painful procedure and commonly cause a short term exacerbation of your symptoms. This usually begins after the injection and usually disappears by 24 hours.

In summary the use of corticosteroids should only be used for conditions that have not responded to other forms of treatment, and not as the initial treatment of choice. If you have further questions, please ask your health professional.

Natural anti-inflammation- A safe alternative

There is an abundance of research into the use of natural forms of anti-inflammatories. Using natural anti-inflammatories eliminates the often dangerous side effects associated with pharmaceutical means.

There are numerous foods which have been found to be **beneficial to inflammation**⁵:

- All fruits and vegetables. Eat fruits raw and vegetables raw or lightly cooked.
- Fresh fish
- Meat, chicken, eggs from grass-fed animals
- Wild game meat
- Nuts: raw almonds, cashews, walnuts, hazelnuts, macadamia nuts.
- Spices like ginger, turmeric, garlic, dill, oregano, coriander, fennel, red chili pepper, basil, rosemary, kelp, etc. (sea salt is okay if you wish to add a little salt).
- Oils and fats: Use organic extra virgin olive oil and coconut oil. Butter is also a healthy choice and the best butter comes from grass fed cows.
- Salad dressing: extra virgin olive oil, balsamic vinegar (or lemon juice), mustard, and spices.
- Whenever you are thirsty, drink water or organic green tea
- Alcohol: Red wine and stout beer are the best choices
- Sweets: Dark chocolate



Supplements can also aid in decreasing inflammation, some of which include⁴:

- Multiple Vitamin/Mineral
- Magnesium
- Concentrated Omega-3 (EPA/DHA-Fish Oil)
- Vitamin D
- Coenzyme Q10
- Alpha-Lipoic Acid
- Acetyl-L-Carnitine
- Ginger/Turmeric/Boswellia
- Garlic
- Glucosamine/Chondroitin
- Calcium Hydroxyapatite
- Probiotics (gut bacteria)



Foods that have been found to **increase inflammation** and should be **avoided** include⁴:

- All grains and grain products, including white bread, whole wheat bread, pasta, cereal, pretzels, crackers, and any other product made with grains or flours from grains, which includes most desserts and packaged snacks.
- Partially hydrogenated oils (trans fats) found in margarine, deep fried foods (French fries, etc.) and most all packaged foods.
- Corn oil, safflower oil, sunflower oil, cottonseed oil, peanut oil, soybean oil, and foods made with these oils such as mayonnaise, tartar sauce, margarine, salad dressings, and many packaged foods.
- Soda, dairy, soy, and sugar.
- Meat and eggs from grain-fed animals. Modern meat is problematic because the animals are obese and unhealthy; they are loaded with saturated fats and contain too many pro-inflammatory omega-6 fatty acids.

Other means of decreasing inflammation

- **Cryotherapy:** Cold therapy, using crushed ice bags or reusable cold packs. The ice pack is wrapped in a towel and then applied to the injured area for 20mins. Repeat every hour when acute.
- **Letric soda:** this is especially useful for acute injuries of the extremities; ankles, knees, elbows and wrist injuries. It is best applied by putting the crystals crushed into an old sock and wrapping it around the injured area overnight. The crystals then help to draw out the inflammatory fluid.
- **Movement:** Movement is vital for certain injuries, especially for acute back pain. Specific movements can prevent an accumulation of swelling and promote healing. It is very important not to overdo any activity as this can aggravate the problem. To find out if your problem can be helped by specific movements or exercises, ask your Chiropractor.
- **Chiropractic adjustments!** : By restoring proper mechanical movement, and eliminating the cause of the irritation with the adjustment, inflammation is reduced.



References

¹ Brukner P, Kahn K. Clinical Sports Medicine 3rd edition McGraw-Hill Professional 2007

² Kaplan RJ. Current status of NSAIDs in physiatry: balancing risks and benefits in pain management. American Journal of Rehabilitation 2005; 84(11); 885-94

³ Hippisley-Cox J, Coupland C. Risk of myocardial infarction in patients taking COX2 inhibitors or conventional NSAIDs: population based nested case-control analysis. *BMJ* 2005;330(7504):1366

⁴ Warden SJ. COX2 inhibitors: beneficial or detrimental for athletes with acute musculoskeletal injuries? *Sports Med* 2005;35(4):271-83

⁵ Deflame: Natural help for Inflammation www.deflame.com