

Running on Empty

The Newsletter of the Bendigo University Athletics Club

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Training tips

Eating for winter training

Some athletes embrace winter's chill as a welcome change from running in summer's heat. But others complain about hating cold weather. If that is your stance, remember that exercising with proper nutrition offers the opportunity to chase away the chills. After all, an aerobic workout can increase your metabolism by 7 to 10 times above the resting level. This means, if you were to exercise hard for an hour and dissipate no heat, you could raise your body temperature from 98.6 to 140 degrees °F. (You'd cook yourself in the process!). In the summer, your body sweats heavily to dissipate this heat, but in the winter, the warmth helps you survive in a cold environment. Runners can enjoy a tropical environment in their running suit within minutes of starting exercise.

Because food provides the fuel needed to generate this heat, the right sports diet is particularly important for runners and other athletes who are exposed to extreme cold, such as skiers and skaters. Here we address some common questions and concerns about winter and nutrition and offer tips to help you enjoy the season. For safety sake, winter athletes should always carry with them some source of fuel in case of an unexpected incident that leaves them static in a frigid environment. Winter campers, for example, commonly keep a supply of dried fruit, chocolate or cookies near by for fuel if they wake up cold in the middle of the night. You want to have an emergency energy bar tucked in your pocket, just in case...

Why do we feel hungrier in the winter than in the summer? A drop in body temperature stimulates the appetite and you experience hunger. Hence, if you become chilled during winter exercise, you will likely find yourself searching for food. Eating "stokes the furnace", generates heat, and helps warm your body. Food's overall warming effect is known as thermogenesis (that is, "heat making"). Thirty to sixty minutes after you eat, your body generates about 10% more heat than when you have an empty stomach. This increased metabolism stems primarily from energy released during digestion. Hence, eating not only provides fuel but also increases heat production, warmth.

Do we burn more calories when we exercise in the cold? Cold weather itself does not increase calorie needs. You don't burn extra calories unless your body temperature drops and you start to shiver. (And remember: the weather can actually be tropical inside your exercise outfit). Your body does use a considerable amount of energy to warm and humidify the air you breathe when you exercise in the cold. For example, if you were to burn 600 calories while cross-country running for an hour in 0 degrees °F weather, you may use about 23

percent of those calories to warm the inspired air. In summer, you would have dissipated this heat via sweat. In winter, you sweat less. If you are wearing heavy clothes, you will burn a few more calories to carry the extra weight of skis, boots, heavy parka, snow shoes. The Army allows 10% more calories for the heavily clad troops who exercise in the cold. But the weight of extra clothing on, let's say, winter runners is generally minimal.

Why do we shiver when we get cold? Shivering is involuntary muscle tensing that generates heat and offers a warming effect. When you first become slightly chilled (such as when watching a football game), you will find yourself doing an isometric type of muscle tensing that can increase your metabolic rate two to four times. As you get further chilled, you will find yourself hopping from foot to foot and jumping around. This is nature's way to get you to generate heat and warm your body. If you become so cold that you start to shiver, these vigorous muscular contractions generate lots of heat - perhaps 400 calories per hour. Such intense shivering quickly depletes your muscle glycogen stores and drains your energy. This is when you will be glad you have some emergency food in your pocket!

What is a big nutritional mistake made by winter athletes? Failing to drink enough fluids is a major problem among winter athletes - runners and winter hikers alike. Cold blunts the thirst mechanism; you will feel less thirsty despite significant sweat loss (if you overdress), to say nothing of respiratory fluid loss. That is, winter athletes need to consciously consume fluids to replace the water that gets lost via breathing. When you breathe in cold dry air, your body warms and humidifies that air. As you exhale, you lose significant amounts of water. Some winter athletes purposefully skimp on fluids because urinating can be problematic - too much hassle to shed layers of clothing. Yet, dehydration hurts performance and is one cause of failed mountaineering adventures.

What's best to eat to warm up? If you become chilled by the winter weather, as can easily happen if you wear sweaty, wet clothing that drains body heat, fail to wear a hat (30 to 40% of body heat can get lost through the head), or drink icy water (from a water bottle kept on the outside pocket of your backpack when winter hiking), the best way to warm yourself up is to consume warm carbohydrates - hot cocoa, mulled cider, and steaming soup, as well as oatmeal, chili, and pasta. The warm food, added to the thermogenic effect of eating, contributes to rapid recovery. In comparison, cold foods and fluids chill your body. Research subjects who ate a big bowl of ice cream in five minutes experienced a drop in fingertip temperature of 2 degrees °F in the first five minutes, 5 degrees in 15 minutes. In summer, this cooling effect is desirable, but in winter, hot foods are the better way to warm yourself. Bring out the thermos of soup!

Why do we gain weight in the winter? Some people eat more because they are bored and less active. Instead of going out running, they are eating mindlessly in front of the television. For others, the change of seasons has a marked affect upon their mood (known as Seasonal Affective Disorder). Changes in brain chemicals increase carbohydrate cravings and the desire to eat more. Overweight and obese people gained even more,

with about 14% of the group gaining more than five pounds. The problem is, very few of the subjects lost those pounds, that is eight pounds in ten years. One weight management solution is to stay active in the winter. By investing in proper clothing, you will be able to stay warm from head to toe. You will benefit from not only being able to enjoy exercise but also from sunlight - a good way to battle winter depression (and attempts to cheer yourself up with food). Winter exercise is an asset for managing health, weight and the winter blues. The tricks are to dress right, fuel well, prevent dehydration - and you'll stay warm!

Injury tips

Tight hamstrings

The hamstring muscles consist of the semitendinosus, semimembranosus and biceps femoris.

Many people suffer with tight hamstrings. Most of the time they will not cause a problem but can be more prone to bad tears, may contribute towards injuries such as lower back pain and popliteus injury and also may be limiting your sporting performance.

Tight hamstrings can also be responsible for postural problems and other back problems such as sacroiliac joint pain, as they will tend to pull the pelvis out of normal position.

The 'normal' range of hip flexion (measured when laying flat on your back and raising the leg straight off the floor - knee straight) permitted by the hamstrings is in the region of 80-90 degrees. Anything less than 80 degrees is considered 'tight'.

Why do I have tight hamstrings?

Genetic reasons. You can be born with naturally short hamstrings, and some people are naturally inflexible. In general women and children are suppler than men.

Not enough stretching. If you participate in a lot of sport and do not stretch properly then you are more likely to have your hamstrings tighten up. It is especially important to stretch properly after exercise as this is when the muscles are warm and more receptive to stretching. If you tend to make a beeline for the bar after your run, think about spending 10 minutes stretching first.

Lower back issues. Problems in your lower back can put pressure on your sciatic nerve which runs down the legs, and cause the hamstrings to tighten.

What can I do about it?

Even if you are not naturally supple you can still improve your flexibility by stretching.

Types of stretching include dynamic, static, passive, PNF and CRAC (see "Running on Empty", June 2010. A full description of these can be found [here](#)). Avoid "ballistic" stretching, which is bouncing and forcing the muscle to go further than is comfortable and will damage it.

Sports massage can help in loosening tight muscles. Have a regular sports massage on the legs.

What problems can tight hamstrings cause?

More susceptible to tearing. If you force a muscle to go further than it can normally go at speed it is likely to tear.

Tight hamstrings can cause the hips and pelvis to rotate back flattening the lower back and causing back problems.

If your muscles have tightened up then blood has been squeezed out of them therefore your muscles are working at less than 100 % of capacity and your performance will be down as a result. Regular sports massage and stretching to improve muscle condition will not only reduce the likelihood of injury but may also improve sporting performance.

Who's hot, and who's not

Who's hot..... Andy Buchanan is going from strength to strength! After finishing third in the recent Victorian school championships, he is now training to compete in the National titles in Brisbane.

Maddie Evelyn also did well in the Victorian school championships, coming eleventh in her age group.

Well done to all BUAC members who ran in the 14km City to Surf in Sydney. Lee McCullagh ran in 55.25, Andy Buchanan ran in 46.35 (38th overall), Leon Hamond ran in 1.18.15 and Luke Gregory ran in 1.02.58.

John Rose and Angela Slattery, who ran in the Gold Coast half marathon and 10km. They kept a very low profile, as our eagle eyed Running on Empty Gold Coast correspondent failed to spot them.

All BUAC runners who competed in the Eaglehawk and South Bendigo Invitations. It is great to see so many BUAC runners flying the flag.

And the big news, Jenny Jones and Justin Lee on the announcement of their engagement!!!!!! The staff at Running on Empty are hoping Jenny adopts the hyphenated name of Jenny Lee-Jones, as a tribute to Tommy Lee Jones (actor) and Ricky Lee Jones (1970s singer); both who have no interest in running.

Who's not..... Julia Gillard and Tony Abbott, is there a third option?

Media watch



Tracey Wilson and “Moe” Evelyn, during their hike over the legendary Kokoda Trail. The lads are pictured with Brendan Buka, the fastest man to run the Kokoda Trail. He completed the trek in an amazing 16 hours and 34 minutes! Of course, Brendan knew of Tracey as they get the Bendigo Advertiser in PNG, but he wasn’t quite sure what to make of Moe’s hat.



After splitting with his coach Terry Hicks, BUAC speedster Andy Buchanan has exclusively revealed to Running on Empty the identity of his new coach.....Sam Toucan.



This has been repeatedly requested by several BUAC members, so the staff at Running on Empty have crumbled to public demand. Separated at birth - Geelong ruckman Mark Blake and BUAC secretary Pat Kenny. Kenny's scratchy football career with Melbourne University earned him the nickname of "the Wizard" due to his prowess on a pinball machine at the club's sponsor pub.

Internet stuff

Visit "www.bendigouni.com" for all of your BUAC news, and join "Bendigo University Athletics Club - Uni Pride!" if you are a Facebook user. It's better than listening to the wireless!

Race day contacts

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Feel free to make suggestions, or to submit information and pictures, to help fill these pages. Contact the editor, Pat Kenny by email on mpken1@bigpond.com with any information (preferably true).