

# FILLING THE TANK

## CARBOHYDRATES ARE ESSENTIAL, but is more always better?

If you're a savvy runner, carbo-loading will be one of the first phrases you encounter. Our body converts carbohydrates into glycogen that is then shuttled to our muscles to be used as fuel. Runners, especially those that clock extensive mileage, require greater amounts of carbohydrates to ensure their performance remains in top shape. Take it easy though – it's not an excuse to go ape over bak chor mee yet.

Here's how carbo-loading is usually done: About a week prior to a major endurance event like a marathon, training is gradually reduced while carbohydrate intake is greatly increased in the last two to three days, says Professor Ron Maughan, a UK-based hydration expert at the Loughborough University who was recently in town for the Hydration and Sports Nutrition Seminar sponsored by 100Plus. Get this right, and you'll gain an invaluable edge.

### Save The Date

We know what you're thinking – more fuel equals better performance. Hate to burst that bubble. "Your body can't store unlimited amounts of carbohydrates so there's no point in eating excessively," says Prof Maughan. "You'll definitely get fat if you carbo-load every weekend." In fact, carbo-loading should only be reserved for that one big event you peak for during the year. But it's not the easiest thing to execute: You need to consume 10 to 12g of carbohydrates two to three days before the race. For a 72kg individual, that can amount to 2,800 calories!

### Test Of Fortitude

Not sure if you need to carbo-load? "Pinch an inch of your belly," says Prof Maughan. "There are people who do a little bit of exercise and think that just because they're 'working out', they need to consume heaps of carbohydrates. Don't pair a marathoner's diet with a couch potato's training plan." He also reckons most people who join

marathons train far too little to warrant any special diet. "People join not because they like running or because they want to be first – they run because they promised a friend or wish to donate to charity," he says. Also, ensure that your event will last beyond 90 minutes before carbo-loading will offer any benefit at all, says Ling Ping Sing, senior dietitian at Changi General Hospital.

### Get Chomping

If you're a hardcore runner and clock an extensive mileage every week, try eating more carbohydrates on a regular basis instead of watching your carbohydrate intake a week away from a race. Most people ingest 5 to 6g of carbohydrates per day, says Prof Maughan. Depending on how much you run, you can try upping the ante to around 10g of carbohydrates, he says. Good foods to include in your diet (depending on what you can stomach) are wholemeal products, white bread, plain cereal, pasta, noodles, bread, rice, potatoes and bagels, says Jaclyn Reutens, a sports dietitian at Aptima Nutrition & Sports Consultants. If you find it difficult to scarf down the extra carbohydrate load, she suggests liquid meal replacements and sweet stuff like jellies, jam, honey and fruit smoothies.

### Bounce Back

While prepping yourself for the main event is important, it's also crucial to plan for recovery, not only after the marathon proper but with your everyday workouts as well. The key to a quick rebound depends on how much time you have to recover, says Ling. "If you've got less than eight hours before your next session, get carbohydrates into your system within one hour," she advises. But if your next run is the next day or two days later, you can plan your meals at your own leisure – but don't leave it to more than a couple of hours, says Prof Maughan. The body best absorbs carbohydrates within an hour, says Ling.



# DUDE, RADICALS

**ESSENTIAL FOR HEALTH,**  
antioxidants can be your ticket to  
a good workout as well.

**B**y now, you'll have heard about the value of antioxidants (if your mum or doctor hasn't tried forcing them down your throat yet). Able to ward off free radical damage in the body, these nutrients are touted to possess benefits for heart disease, cancer, ageing and the immune system, among many others. Since research has shown that exercise does release greater amounts of free radicals that can affect your running performance, it begs the question: Are more antioxidants the way to go?

The answer is sketchy at best. The effect of antioxidants on an athlete's performance is still an emerging area of research, but Dr Trent Watson, in his commentary "The Science of Antioxidants and Exercise Performance" in the book *Clinical Sports Nutrition* suggests that

a diet that has as much as three times the daily recommended intake may be required to combat oxidative stress caused by exercise.

## **Free And Easy**

While antioxidants are good, the presence of too much of them can be converted to free radicals in our bodies, says Dr Watson. Turns out, the athlete might not even need to ingest extra amounts of antioxidants, says Professor Ron Maughan from Loughborough University in the UK. "Our body naturally produces antioxidant enzymes. When we exercise, secretion of these particular enzymes are increased," he says. Just as our bodies are capable of adapting to regular exercise – we get better at the sport and our fitness improves – they also get better at combating oxidative stress from exercise as well, he adds. "As such, ingesting excessive amounts of

antioxidants can hinder the adaptive response of the body."

## **Variety Is The Spice**

Though some antioxidants such as vitamin C, E and carotenoids have been proven to be the most powerful kinds, says sports dietitian Jaclyn Reutens, it's not advisable to supplement with one or only a few kinds of antioxidants. "Don't take excessive amounts of one single antioxidant as we need a wide range of such nutrients," adds Prof Maughan. "Natural sources are the athlete's best bet." That's good to know, because the United States Department of Agriculture reports that beans (red, black), berries (blueberries, cranberries, blackberries, raspberries, strawberries), apples and nuts (walnuts, hazelnuts, pecans) made it to their top 20 list of antioxidant-rich foods. Of these, red beans and blueberries boast the highest level.







**I'M ALWAYS  
KNACKERED BY DAY'S  
END – HOW CAN I KEEP  
MY ENERGY LEVELS UP,  
ENOUGH FOR A RUN?**

**GET SNACKING.** On the days you train, you need to keep your glucose levels optimal, says Jaclyn Reutens, a sports dietitian. Mix low-fat, low-to-high glycemic index foods such as bananas, yogurt, beans, nuts, fruits, sports bars and low-fat fruit smoothies. "Eating food increases your metabolism as our bodies digest food and deliver nutrients," says nutritionist Ng Hooi Lin.