

# Onwards and outwards

How to maximise your muscles by "carbo-loading" your protein



know what's hit them

e're pretty sure that if you've ever even dreamed of muscle. you're savvy to the fact that protein is its building blocks. Eat protein, get big muscles - simple. But what if your raging appetite for steaks is the reason you're failing to beef up? Keep reading to find out how to harness the power of protein by giving it up.

## Too much of a good thing

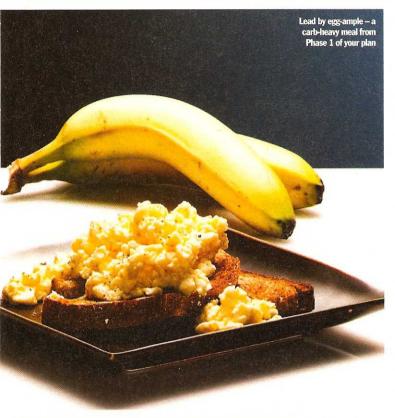
"Most blokes trying to add muscle exceed their daily requirement of protein because it lurks in surprising foods, like a bagel, which you'd never expect to find any protein in," says clinical nutritional therapist Emma Wells of Smart Nutrition (www. smartnutrition.co.uk). "Eating too much protein will fill you up but if

you're trying to muscle up it's not simply a case of more is better," says sports nutritionist Neil Foster of Glanbia Nutritionals. Your body will always have a control measure to stop you being a glutton.

"When you demolish that KFC bucket your body gets so much protein that it has to work twice as hard to break down all the excess protein and amino acids," says

Wells. A study published in the Journal of Nutrition found that a diet overly high in protein has a very acidic effect on the body, especially if you have a diet lacking in alkaline foods. The long term effects can be a loss of bone mass as calcium is leached from your bones to buffer the acidity. "To prevent this happening your body releases extra protein-destroying

VORDS RAY KLERCK. PHOTOGRAPHY PETER THIEDEKE, REX FEATURES. FOOD STYLING LORNA BRASH



enzymes so you don't get poisoned," savs Foster. "Your body doesn't stop to absorb the good stuff, much the same way that insulin works when we eat too much sugar and carbs. "You should aim to eat 2g of protein per kg of body weight per day. It should be spread evenly through the day with a max of 50g of protein per serving. By staggering your intake you'll have a constant supply of amino acids for muscle growth," explains Foster.

# **Protein protection**

Your body is highly adaptable and capable of storing nutrients, which athletes, like runners, have used to their advantage. "Before a race they'll deplete their levels of muscle and liver glycogen by eating less carbs and training heavily for 5 days, then have a "carbo-loading" phase where they eat heaps of carbs like potatoes and pasta then

they don't train," says Rob

Spedding, deputy editor of

for a long event. "When you

The carbs get stored in their

muscles giving them more energy

deprive your body of a nutrient for

Wells. "Then when you return that

absorbed rapidly." The trick is to

lure your body into thinking the

drought is near by limiting protein

the same. "The foundation behind

intake but keeping your calories

protein cycling is eating more

author of Championship

Bodybuilding (www.nutra

media.com). "This coaxes the

a while it thinks it's starving and

goes into storage mode," says

nutrient to your body, it gets

Runner's World.

"It's during this phase that you can use protein

like a drug rather than just a food. You have

tricked your body into thinking it's starving"

# How to do it

# Phase 1 Pacify your protein

"Reduce the protein you eat to 1.5g per kg of body weight," says Aceto. A study in The Strength Journal found you can maintain muscle mass while eating 1-1.5g of protein per kg of bodyweight per day. "You'll need to replace the protein with extra calories. Add an extra 18 calories and 3g of carbs per pound of body weight per day. If you don't eat enough calories in Phase 1 your body will cannibalise your muscles for energy," says Aceto.

## Phase 2 Pump your protein

A 2004 study in the Journal of Sports Sciences found that a high protein diet, not exceeding 3.5g of protein per kg of body weight, is recommended if you want your muscles to grow. "Eating 3g of protein per kg of body weight doubles the intake of phase one,"

# The carbo-loading plan Try this plan (for an 80kg man)

# Phase 1 Protein pacifying

- 2 scrambled eggs on thick sliced wholemeal toast with butter
- 2 bananas

# Meal 2

■ 1 apple, 1 pear

- 1 chicken breast
- 300g wholemeal rice
- 250g chopped tomato
- 1 protein bar

■ 1 wholewheat bagel with butter

- 85g salmon steak
- 2 baked potatoes
- Large salad with dressing

■ 80g pasta with pesto

### Approximate totals 3200 calories, 120g protein, 550g carbs

# Phase 2 **Protein pumping**

- Four eggs
- 4 slices of wholemeal toast
- ■1 banana

### Meal 2

# Protein shake

- 40g whey protein
- Two handfuls of berries
- 150g oats + 1 banana

- 250g sirloin steak
- 2 baked potatoes or chips

■ 2 wholewheat bagels with peanut butter

- 170g salmon steak
- 1 baked potato

# Meal 6

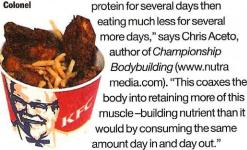
### Protein shake

390g carbs

- 30g whey protein powder
- 60g oats + 1 banana

### Approximate totals 3200 calories, 280g protein,

Not the protein we're after, thanks Colonel



says Aceto. "It's during this phase that you can use protein like a drug rather than just a food. You have tricked your body into thinking it's starving so the protein-destroying enzymes are limited and your body is better absorbing and storing the protein," states Aceto. And the storage depots, your muscles, will swell with size.

### Plan your protein

Bodybuilders have been known to do the protein restriction phase for as long as a month but there's no tangible research, aside from their other-worldly-sized arms, to back up their claims. But follow the 8-day strategy for as long as you keep getting results. When your improvements start to taper off, usually after about 8 weeks, switch back to your old grazing habits of 1g of protein per pound of body weight for 2 months. After a month, jump back on your bike and get stuck into the cycle again. Will