

# ELECTRIC AMINO ACID TEST

BY PAUL MCNALLY

The amino acids your body is lacking, if pumped into your system, could regress disorders,

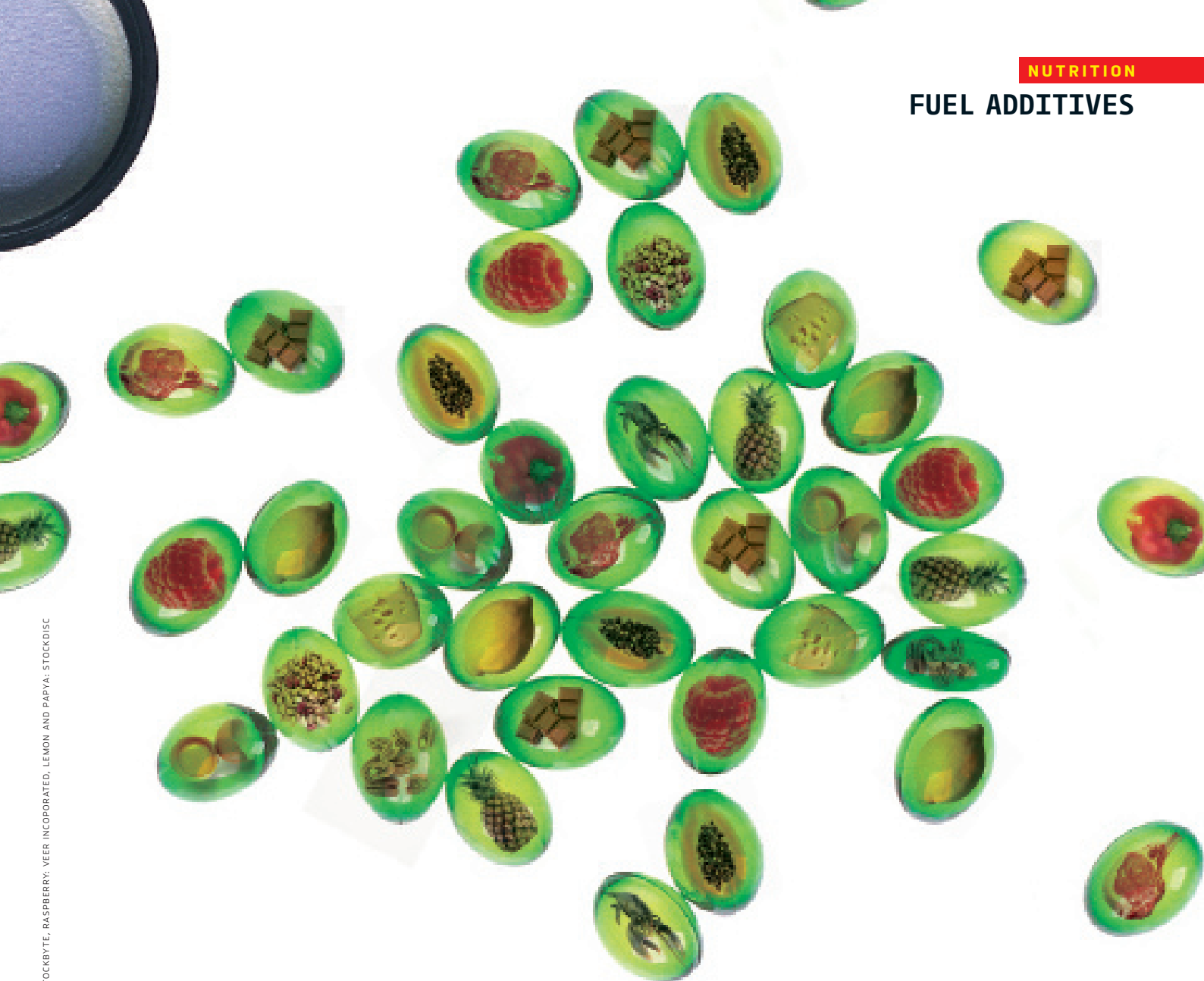
**C**ERTAIN MEN OUT THERE can help cure cancer, a broken heart, bad luck, even prevent death. For R30 they'll even predict your future. No quibble. They aren't in your hospital or your church. For some reason they advertise by handing out flimsy pamphlets at traffic lights. Where's the justice? Why aren't these miracle makers on every chat show? Writing best-selling books? Curing thousands of men, women and children via satellite television? Well, the only feasible answer

is: they're fakes. Frauds. Daylight robbers. When you get a pamphlet like that stuffed into your car you have a split-second of hope that the phenomenon might exist. There on a scrappy bit of paper is the promise that you can actually have your ailments cured, then this gives way to anger because the world doesn't work like that. So you crumple it up, toss it into the cubbyhole and drive on.

This is exactly the way I felt when I heard about amino acid supplementation. It was like a con artist's pamphlet was being shoved in my face. The research stated that amino acid supplements could lower a guy's need for medication. Powerful meds are the knee-jerk

reaction of most doctors to a smorgasbord of illness, from Attention Deficit Hyperactivity Disorder (ADHD) and cholesterol to acne. Studies reckoned you could dampen these serious conditions (and other) with micronutrients, particularly essential amino acids, found in everyday foods.

In South Africa, 37 percent of deaths every year are attributed to lifestyle-associated disease – most of which can be helped with better nutrition. The frightening fact is you could be eating a so-called healthy diet with no fat and plenty of veg, and still be deficient in a whole range of these amino acids. Thankfully, it turns out, in one form



help depression, cure cholesterol and clean up your acne. **The answer? Get eating**

or another, most of the answers are in your supermarket.

## RUN BOY RUN

No parent wants to medicate a 10-year-old. Even if he's throwing temper tantrums, can't concentrate or do school work, are you actually going to give him drugs. Most of his adolescence will be spent trying to keep him off drugs and alcohol, now you're going to dope him up before he even gets started? When Carol Smith started giving her son, Ben, Ritalin (a serious prescription drug that is commonly used to fight ADHD) he got worse. This is not the case for everyone, sometimes

drugs are the only option and work fine. But in Ben's case the drug "cured" his ADHD in that the tantrums stopped, but as a side effect he spaced out like a full-blown varsity stoner. He became too apathetic (rather than frustrated) to do any school work. The doctors told Smith there was nothing they could do.

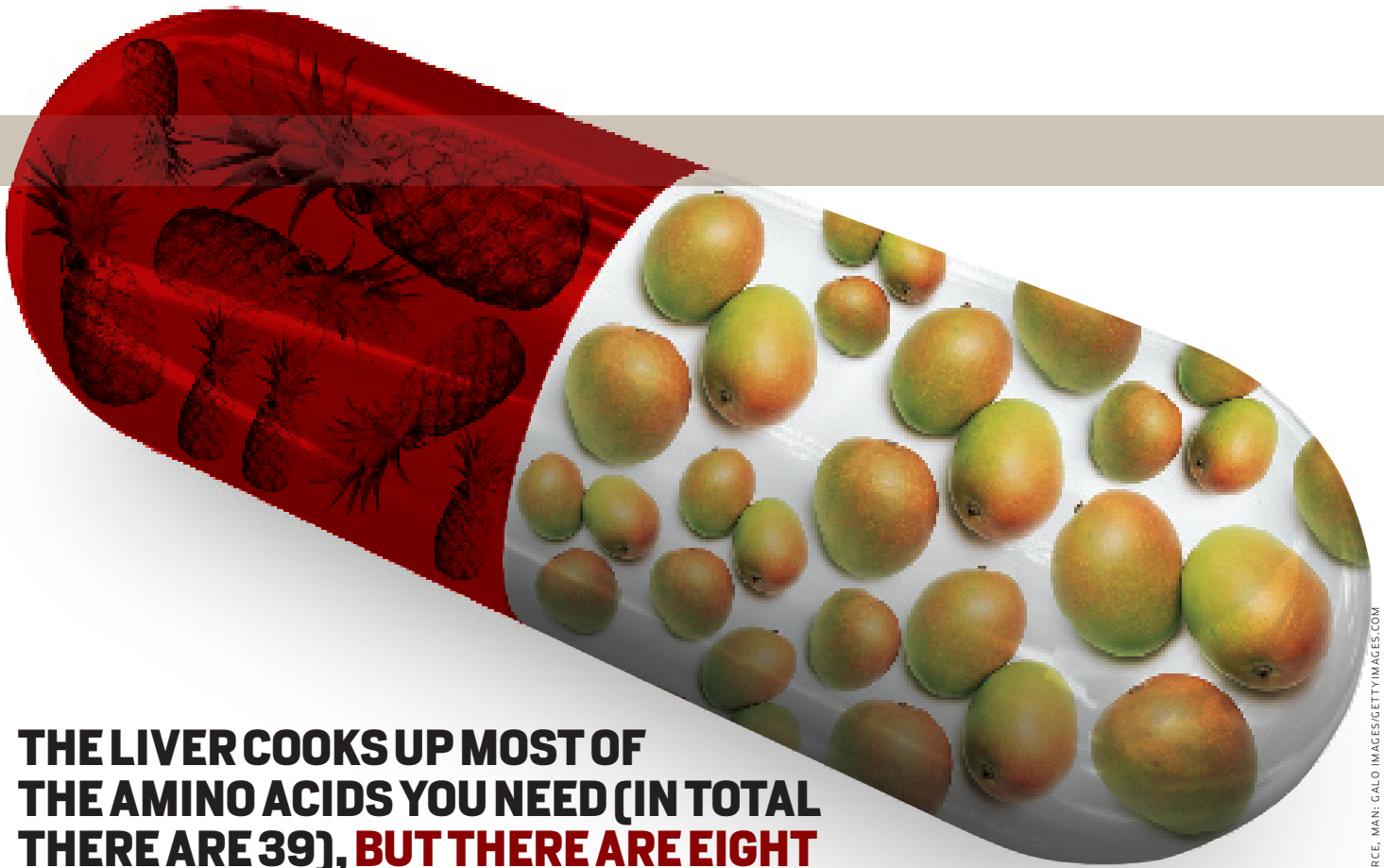
Enter Dr David Botha, a blood test for the kid and a bucket full of white powder. From a blood sample, Botha and his team from the Amino Acid and Micro-nutrient Research Institute determine which amino acids you are lacking, mix up a specific powder and turn it into a capsule. You end up with a

specially customised supplement that helps your body tackle serious problems. Even a problem like ADHD.

"We simply mix up the correct amino acids, vitamins, minerals, fatty acids and probiotics that are lacking. These are the five components of a healthy body," he says.

## AMINO ACIDS ANYONE?

Amino acids (tiny bits of protein) are the backbone of Botha's work. When dealing with conditions like ADHD, his treatment doesn't specifically increase the level of dopamine in the brain (which is what Ritalin does). However, it claims that over time it will fix all the



## THE LIVER COOKS UP MOST OF THE AMINO ACIDS YOU NEED (IN TOTAL THERE ARE 39), BUT THERE ARE EIGHT THAT YOUR BODY CAN'T PRODUCE, EVEN IF YOUR LIFE DEPENDED ON IT

steps in the body that lead to the production of dopamine. There are usually missing links that need filling in. Botha explains the process as “The Nutrient Tank Concept” – as if you treat your body like a water tank in a car that needs filling. When the tank runs dry, the engine will stop or even break down. “When this happens it’s often hard to directly treat the symptom that occurs,” says Botha. For example: horrific acne might not vanish with traditional methods, but a

### TREASURE HUNT

Three essential amino acids, what they do and where to get them

**DRINK MILK** For the amino-acid tryptophan  
**To get happier** It helps with serotonin production.

**EAT LEGUMES** For the amino acid lysine  
**To get better** It helps with muscle production and recovery from sports injuries.

**EAT EGGS** For the amino acid leucine  
**To get stable** It helps with the regulation of blood sugar levels.

shortage of any of these micronutrient components severely impairs the body’s ability to build, repair and maintain itself. So with no maintenance available you get a pus-filled, acne break-out. The good news: mending the gaps reverses this.

How does this grand reversing happen? Well, the liver cooks up most of the amino acids you need (in total there are 39), but there are eight that your body can’t produce, even if your life depended on it. These are the ones you need to get from the supermarket. Simple enough, or maybe not. The difficult part is you need all eight in the body at once for proper absorption of any of them. To further complicate the situation, if the lowest quantity of an amino acid is present at say 60 percent, all the amino acids will be limited to that 60 percent level of absorption. So a can of tuna can’t be the beginning and end of your protein consumption. For example: valine is an amino acid that aids in muscle repair and is found in fish, while arginine helps your immune system and is found in oats. Your body needs both of these substances swirling around in you simultaneously (within a three hour period). The up side is once

you have them all neatly absorbed, they are manufactured into some incredible stuff. Hormones, enzymes, skin cells, hair (Botha’s work has been known to pause baldness), antibodies, DNA, muscles and even ways to help cart oxygen around your body. The results? Improved immune-deficiency and skin problems. Even cancer prevention.

“I’ve probably got cancer right now but my immune system is fighting it,” Botha says. Cancer arises when there is abnormal and uncontrollable division of cells, which then invade and destroy surrounding tissues. So keeping your immune system up helps prevent that initial fault. Of course, no one

know exactly what triggers cancer in the first place. It's still a guessing game. But that doesn't stop Botha from scolding oncologists (specialists who deal with cancer) for removing cancers but not looking at what caused them in the first place.

Other essentials for your system are fatty acids like omega-3, water, vitamins for building and repair, minerals and probiotics. Probiotics are "friendly" micro-organisms that live inside your gut and, among other things, help lower your cholesterol. Medication for high cholesterol usually pounds your liver and makes you sick, but these living organisms don't do either.

## I HAVE A DREAM

For a second, imagine that amino acid supplements are as important as some studies are claiming. Does anyone else see how perverse the rest of the medical profession's stance is? Doctors, true professionals, told Carol Smith that she would have to choose – live with a manic kid or a medicated one. So why are people like Smith left feeling hopeless and fighting for themselves? If there's a new wave of thinking that with a healthy diet your body can do the work for you, why don't more doctors or psychiatrists seem to know about it?

I went to a psychiatrist recently. Anxiety attacks. Nightmares. I couldn't concentrate. I left with a swift prescription for a mild antidepressant. It's what I wanted: the silver bullet I was after. In 10 days I felt incredible – my body was flooded with extra serotonin. But it made me uneasy. The psychiatrist was a nice bloke, he smiled, made time for me and asked questions in a warm, open-palmed way, but he didn't touch on what I was eating, not in the slightest. What's going on?

"South African doctors are well trained, but often their training doesn't sensitise them to diet," says Professor Esté Vorster, the director of the Africa Unit for Transdisciplinary Health Research of the



North-West University. "It's not the solution they instinctually go for," he says. Often in the early stages of a condition (no matter what it is), medication isn't needed but is dished out anyway. This is when diet could be examined, lifestyle changes made and medication actually avoided.

Things are changing. Even the South African government is taking up the initiative. A little fortified bread now (vitamins A, B6 and C are mixed in to the flour used in government loaves) can mean less medical treatment later. In the medical profession's defence, most of us want more than a fancy loaf of bread to treat our illnesses. Be honest: if you leave an appointment without a prescription then you feel cheated.

"Medication is the 'quick fix' that requires no effort apart from remembering to swallow," says dietician Nicola Duffield. Even top nutritional experts like *Men's Health* specialist nutrition editor, Megan Pentz-Kluyts, are quick to stress that you can't use diet as a complete substitute for medication. "Especially for extreme cases of cancer or

## MEDICALLY SPEAKING

Three medications – when you need them, you need them. No matter what food you eat

### DIABETES: INSULIN

**You need it for real when** The beta-cells in the pancreas have failed completely and they're no longer making any insulin.

**Why?** Insulin is important for the disposal of glucose from the blood stream into the cells in the body. No matter what you eat in this instance you will not clear your fuels properly from the blood stream, resulting in the blood sugar levels rising.

**What will happen?** You can cause damage to the cells and systems of the body.

### HIGH BLOOD PRESSURE: QUINAPRIL

**You need it for real when** Your blood pressure is high and you need your body to stop narrowing your arteries.

**Why?** If it continues for a long time, the heart and arteries may not function properly. This can damage the blood vessels of the brain, heart and kidneys, resulting in a stroke, heart failure or kidney failure.

**What will happen?** You can have a heart attack and die.

### DEPRESSION: ANTIDEPRESSANT

**You need it for real when** There's a biological imbalance in your brain's chemical make-up. Generally a lack of serotonin.

**Why?** You can stop functioning in your normal, everyday life.

**What will happen?** In serious cases there's a possibility of suicide.

BY NICOLA DUFFIELD, RD



## FUEL ADDITIVES

depression,” says Pentz-Kluyts. If someone is suicidal, water and cashew nuts (classic mood enhancers) aren't going to be enough.

Even Botha and his dieticians, despite the impressive results, emphasise that simply chowing store-bought amino acids won't fix you. And even firm believers in these supplements still stress that you shouldn't live off them. If you walk into a pharmacy and start gobbling amino acids it's going to give you rather expensive kidney failure. But with the right substances (all found in common foods) suited to your particular amino-acid profile, your body can repair, fight disease, build muscle and optimally sustain energy. This is based on the idea that your body, given the right fuel, will run perfectly.

So, even if you're being cautious and keeping the meds, a passing reference to food would be good. Pentz-Kluyts gives me the obvious solution. She tells me that guys are starting to regularly see their doctor *and* a nutritionist – not that any doctor or psychiatrist has ever pointed me in this direction. “It's to cover all the bases,” she says. That's great. Good for them, but don't the doctors know about proper nutrition? They've got *Men's Health* in their waiting rooms, right? It turns out doctors similarly are looking for their own silver bullet – definite answers and medications that work. Patients and doctors are all asking what exactly is making us sick and what will it take to rectify. Sounds reasonable, but often it isn't possible, especially when hunting for deficiencies in amino acids and diet. There is a far less obvious “cause and effect”. It demands New-Age words like “holistic” and is more of a process. Because of the array of poor diet and lifestyle choices, it's often difficult to pinpoint the real cause and effect.

Lucky for Carol Smith it wasn't overlooked in her son's case. Trading your son in for a calmer model isn't usually an option (for legal reasons). The fact is: as soon as Ben came off Ritalin and went on the supplements he had a complete personality overhaul. After being supplemented he became friendlier, in fact his temper disappeared. The distant, dreamy look left his eyes and the frustration didn't return. He was rebuilt from the ground up, rather than glossed over with medication.

“Diet is such a blind spot in society,” says Vorster. “Especially with chronic diseases of lifestyle like cancer, stroke and heart attacks,” he says. Many health problems can be avoided by simply eating healthier and



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taking care of your body – this includes exercise, stress management and eating your five fruit and vegetable servings a day.

Despite all you've read here, this is not an order to throw away your medication (see “Medically Speaking” on p185 for medications that are essential for certain conditions) and acid-wash your GP's Beemer – it's more of a suggestion to lower your confidence in shiny, prescription pills and tune in to your body's signals. **MH**

## BOOST YOUR INTAKE OF ESSENTIAL AMINO ACIDS AT MEALTIMES

### BREAKFAST

➤ **Opt for egg on wholegrain toast or a bran muffin with cheese**

➤ **Make a peanut butter sandwich** Separately nuts and grains do not contain all your essential amino acids, but combine them and they offer you the full spectrum of essential amino acids, allowing your body to use the protein optimally.

➤ **Smoothie: milk, yoghurt and fresh fruit**

Although dairy products are rich in all the essential amino acids, they contain high amounts of the amino acid tryptophan, which is converted to vitamin B3 (niacin, which is crucial in carbohydrate and fat metabolism) by the liver. Tryptophan also serves as a precursor for serotonin, a neurotransmitter that helps the body regulate appetite, sleep patterns and mood.

### LUNCH

➤ **Baked beans on toast** Legumes are low in tryptophan and methionine but high in lysine and isoleucine, so when combined with grains, which are high in tryptophan and methionine, they give you the full spectrum of essential amino acids, allowing your body to use the protein optimally.

### DINNER

➤ **Add a portion of red meat, poultry or fish**

All are rich in phenylalanine. This amino acid is needed for the formation of epinephrine (adrenaline) and noradrenaline, which helps relay nervous system messages through the body.

➤ **For the hungry – Spaghetti bolognese**

Combine lean mince, spaghetti (high in tryptophan and methionine) and a tomato-based sauce.

### TO END OFF THE DAY...

➤ **A mug of hot chocolate made with milk or a block or two of milk chocolate** All rich in tryptophan and relaxes you by producing some of the sleep hormone melatonin and the happy hormone serotonin – sweet dreams.

BY MEGAN PENTZ-KLUYTS