

## A-listers such as Madonna are swearing by the benefits of a tropical fruit sports drink

By JILL FOSTER

**G**WYNETH Paltrow says drinking it as an 'on-the-go snack' helps keep her slim. And Madonna loves it so much she invested heavily in a firm that makes it.

Hollywood stars Courteney Cox, Demi Moore and Matthew McConaughey are also said to be devotees — which may explain why coconut water is taking off as the post-exercise drink of choice among mere mortals.

Last year, U.S. manufacturers reported an 800 per cent jump in sales in just 12 weeks.

Not to be confused with coconut milk — a creamy substance made from grated coconut flesh and water — coconut water is the juice found inside young, green fruits.

Coconuts are hollow in the middle, and the water can be obtained simply by cracking the husk. You may have had the pleasure of sampling it fresh from the tree on an exotic holiday.

However, thanks to canny manufacturers, today the curious-tasting liquid — often described as slightly metallic — can be found in cartons in supermarkets, often sweetened with natural fruit juices.

Brands include Vita Coco — the one that Madonna invested in, along with McConaughey, Demi Moore and Red Hot Chili Peppers frontman Anthony Kiedis — Zico and Dr Antonio Martins Coco Juice.

The stars' total investment in Vita Coco is estimated to be under \$10million, which amounts to a minority stake in the company, which has been valued at up to \$140million by industry analysts.

It is thinner in consistency than the sweeter milk. And as a 100ml serving contains only 39 calories, 0.25oz sugar and just a trace of fat, it is easy to see why it is popular with the diet-conscious celebrity set.

'Coconut water is almost sour-tasting,' says Dr John Berardi, a nutrition coach for elite athletes. 'It's a bit like Marmite — people love it or hate it.'

'Each serving has four to five times less sugar compared with cola and fruit juice. It's also a good source of vitamins C and B as well as protein, calcium, iron, manganese, magnesium and zinc.'

**I**T ALSO contains another group of nutrients called cytokinins, which many scientists think can play a role in human health — slowing ageing and lowering the risk of cancer.

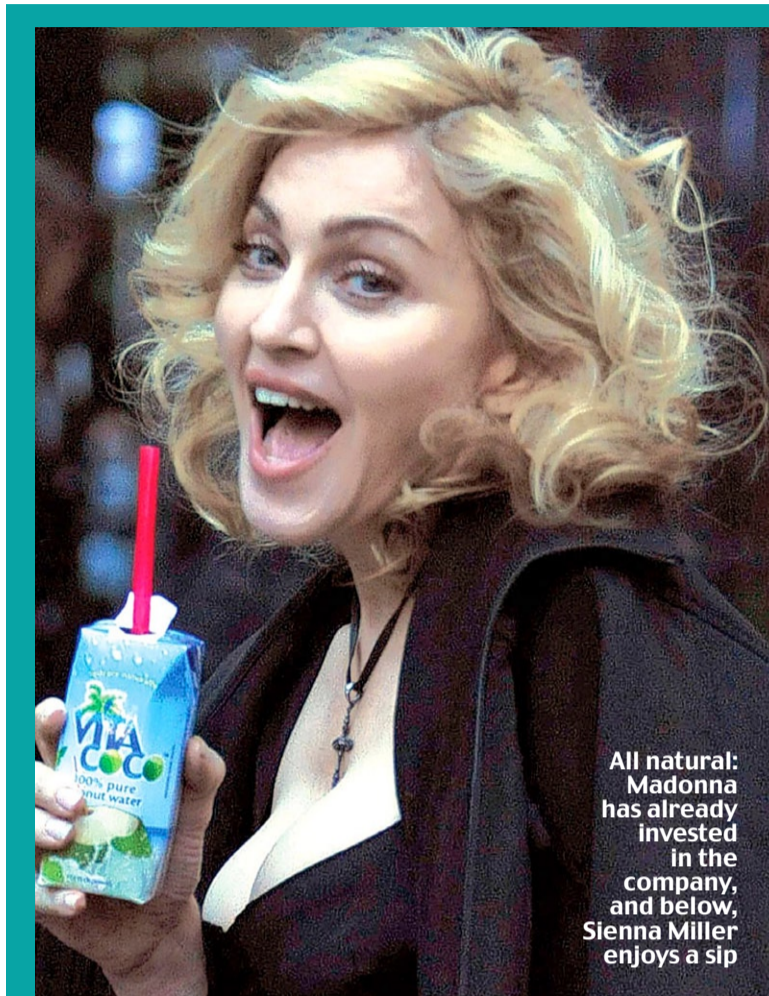
A study of post-exercise rehydration carried out by the University of Science in Malaysia, which compared coconut water with sports drinks and normal water, found that it was 'significantly sweeter, caused less nausea, fullness and no stomach upset'.

But another reason why coconut water is popular with the gym set is that it is full of electrolytes, the minerals vital for bodily functions such as muscle movement, brain operation and nerve transmission. In particular, they are useful in helping to prevent cramps and spasms in the muscles.

'Potassium is one of the most important electrolytes and a small carton of coconut water contains 680mg, more than two bananas,' says nutritionist Kim Pearson.

'The mineral helps maintain water balance in the body. It maintains water pressure within cells as well as water pressure within the blood. So, by helping to draw water into cells and into the blood, it enables the body to rehydrate quickly.'

'It also contains high levels of lauric acid, which the body uses to make monolaurin, a disease-fighting fatty-acid derivative. Lauric acid has



All natural: Madonna has already invested in the company, and below, Sienna Miller enjoys a sip

# Why the stars are all going coconuts



anti-fungal, anti-bacterial and antiviral properties that protect the body against various infections and

boost the immune system.' Coconut water has also been claimed to help to reduce the risk of cardiac disease, improve circulation, regulate digestion and ease stomach pain.

Because it is so similar to the composition of blood plasma, it was even used as an intravenous drip in the South Pacific during the Second World War.

But beware of drinking too much — it can also have a laxative and diuretic effect.

And Dr Berardi has another warning — especially for athletes. 'For maximum recovery after intense exercise, coconut water alone is insufficient,' he says.

'It's too low in calories and carbohydrates. Indeed, for hard-training athletes, I'd recommend a recovery drink that contains protein, carbohydrate and a lot more calories than what is present in a serving of coconut water.'

'As an alternative to high-sugar, low-nutrient drinks, it's fine.'

'But it is certainly not an alternative to food.'

**W**ITH her three young boys dashing about the garden playing football and bouncing on the trampoline, Tracy Woodward seems like any other busy mother, keeping a watchful eye as she cooks a family meal.

But she is perhaps more attentive than others might be. Because a simple knock or cut — the stuff of childhood for rowdy boys — requires immediate medical treatment.

Ten-year-old Ben, seven-year-old Joe and five-year-old Dan all suffer from severe haemophilia, the bleeding disorder caused by a lack of factor VIII, a blood-clotting agent. As a result, a graze — even a bruise, if severe — can be life-threatening.

Yet the twist to this family's story is that Ben was diagnosed with the condition when he was just one. Tracy and husband Gary then had the option of genetic testing and IVF, which could have prevented them having more children with the condition.

But despite knowing the risk of passing on haemophilia was high, the couple refused.

A parent's natural instinct is to protect their child against any suffering, and many might find the Woodwards' choice unsettling. But it highlights the growing role of genetic testing. And many more of us might soon have to face similar choices.

Since the human genome was first mapped in 2003, scientists have been working to identify the specific genes linked to diseases and disorders. But while the emerging field of genetic testing has the potential to change all our lives, couples carrying faulty genes are among the first to feel its real impact.

Specialists argue genetic tests avoid the need for 'reproductive roulette' in families affected by genetic disorders. However, some ethicists warn such testing devalues human life and takes the focus away from finding cures.

These issues were far from the Woodwards' minds when Ben was diagnosed with haemophilia.

It came out of the blue for Tracy, 40, a bookkeeper in the family scaffolding business, and her husband Gary, 42, the company director. 'Ben was a happy, healthy baby,' Tracy says.

**S**HE adds: 'His only problem had been that after his immunisations, he cried for the whole afternoon. The GP said it must have been a bad reaction, but I now know the jabs had caused bleeding into his muscles, and he must have been in agony.'

'Then one day when he was just one, he was in the kitchen in his baby-walker and cut his finger on the inside of the dishwasher. It started bleeding and it just wouldn't stop. That was the start of it.' Thinking he might need a tetanus jab, the couple took Ben to the GP. 'But the cut wouldn't stop bleeding after an hour so he sent us to hospital. The cut was small, but doctors couldn't stop it bleeding, so Ben was admitted.'

Ben stayed in hospital for a week for tests — 'he was like a cushion by the end of it because they kept trying, and failing, to take blood, but couldn't find a decent vein,' says his mother.

The diagnosis was a terrible shock. 'The doctor said Ben had severe haemophilia, a lifetime of spontaneous bleeds and joint damage, and that he would end up in a wheelchair when he was an adult because of the damage done through the bleeding,' says Tracy.

'I lay awake all night clinging to Gary, mourning for the bright future our son would never have.'

Ben was transferred to a hospital haemophilia centre, where he underwent a blood transfusion. It worked immediately, but thereafter Ben's parents had to become experts at keeping their son alive.

They then found out Tracy was a carrier of the faulty haemophilia gene. 'If we had more children, any boys we had would have a 50 per cent chance of having the gene and any girls would have a 50 per cent chance of being a carrier. Once a boy is born with the

By BEEZY MARSH

haemophilia gene, they always go on to develop the disease. As we watched Ben suffering, Gary and I thought about the pain to come, and those odds strangled our plans for a large family.'

Ben had to go to hospital whenever he fell or cut himself to be monitored for internal bleeding — he was there almost weekly.

'Doctors had told us we had a normal, healthy boy and should treat him as such, but every time he hurt himself we were sick with worry,' says Tracy.

Then just before Ben's second birthday, doctors suggested fitting him with a permanent catheter in his chest so Tracy could provide treatment at home. After the operation, the family's attitude to Ben's haemophilia changed.

'We established a routine of regular treatment, with a small 5ml injection of a clotting factor every other day,' says Tracy. 'Although the haemophilia was still there, we felt we were in control of it, rather than it controlling our lives.'

It was then the couple started to plan to have more children. 'When Ben was diagnosed we thought it was a life sentence but we realised this was not the case and it freed us to think about having more kids,' says Tracy.

Tracy was urged to think about IVF sex selection to screen out male embryos. Doctors in some European countries are now licensed to 'screen out' more than 160 genetic conditions before an embryo is implanted.

Conditions include haemophilia, muscular dystrophy, cystic fibrosis, breast cancer linked to the faulty BRCA1 and BRCA2 breast cancer genes, Alzheimer's and the degenerative brain disorder Huntington's.

Two to three days after the embryo has been created in the laboratory, a single cell is removed and checked for the specific rogue gene. Only embryos unaffected by the relevant gene are implanted in the womb during IVF.

Doctors say this technique, called Pre-implantation Genetic Diagnosis (PGD), spares families the stress of having a severely disabled or sick child, or the trauma of choosing a late abortion.

However, some campaigners point out that a number of conditions on the list — such as Down's syndrome and breast cancer — don't necessarily produce children so disabled or sick that they cannot have meaningful lives.

Continued medical advances mean the situation is constantly evolving — in the Sixties, the life expectancy for haemophilia was 11 years; while the condition is potentially life threatening, Tracy's boys have normal life expectancies. There are concerns,

## WHAT'S IN IT?

**PHENOL** — otherwise known as carbolic acid, this disinfectant is used to embalm bodies, as it helps prevent the growth of bacteria.

**METHYL SALICYLATE** — this is produced naturally by some plants and is collected by male bees to make pheromones, compounds that help attract female bees. It helps to numb the skin.