

These shoes are made for running

Shoe guru Danny Orr talks to Running fitness about new technology and just what makes a good running shoe

If Danny Orr was ever to go on *Mastermind*, there's a good chance his specialist subject would be running shoes.

Even his colleagues defer to his encyclopedic knowledge of running shoes past and present: in fact, what Danny doesn't know about running shoes probably isn't worth knowing.

It's a good job, too. As manager of custom engineered footwear specialist Profeet's Fulham outlet (and the recently-opened Clapham South store), he's seen his fair share of good and bad running shoes.

It's a subject about which he's truly passionate. "Seventy-five per cent of people are wearing the wrong shoes, and 60 per cent of them will be injured and their shoes will be a contributing factor," he says.

What was once the sole domain of runners, some brands have acknowledged the fashion potential of their shoes and, in some cases, favoured aesthetics over performance. It's no surprise that around three-quarters of

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the people who come to see the Profeet team (you have to make an appointment in advance) are carrying some sort of injury.

"Most of them will be wearing fashion shoes, which are far too soft and have no real support," says Danny. "This is what we call the

'trampoline effect'. If you're wearing soft shoes, the rebound force on each stride can be more than your body would like to cope with. Often, this is what causes the injury."

As shoe technology evolves, finding the right shoe can often be a complicated process. If you read *Running fitness* regularly, you'll know that we try to make it easier with our comprehensive shoe test reports.

But many people are still swayed by bright colours, funky terminology and price, rather than by whether the shoe is actually the right one for them.

"When you run, you are putting as much as eight times your body weight through your feet (over the course of a marathon distances

race that would equal over 5 tons of loading on your joints)," explains Danny. "You might be wearing the most functional running shoes in the world, but they might not be right for your particular running style."

An 11 stone man of average size, for example will process 112 tons of weight through each limb per mile. That's a lot of force – it's no wonder that runners complain of constant niggles.

However, common injuries experienced by runners such as plantar fasciitis, ilio tibial band syndrome [see our feature on page 36], knee pain and shin splints can be alleviated with the right footwear and custom insole.

This is the Profeet philosophy. The company uses state-of-the-art foot-pressure mapping and video-imaging software to enable its technicians to build a 3D picture of how your foot performs dynamically during running.

This provides the information necessary to build a custom insole and identify the right footwear for your needs, as well as providing guidance to help you improve the dynamic function of your feet.

"Having found what the right shoe might be for an individual, we suggest that people spend more time in them – for example everyday walking, gym sessions, taking the dog, etc. Running shoes are the most functional shoes on the planet and can do a lot to improve alignment and body function on an everyday basis, so it makes sense that we should use them as much as we can and change them more often," says Danny. "It takes a lot of variables out of the situation. Because you are wearing the right running shoes, you are generally performing better."

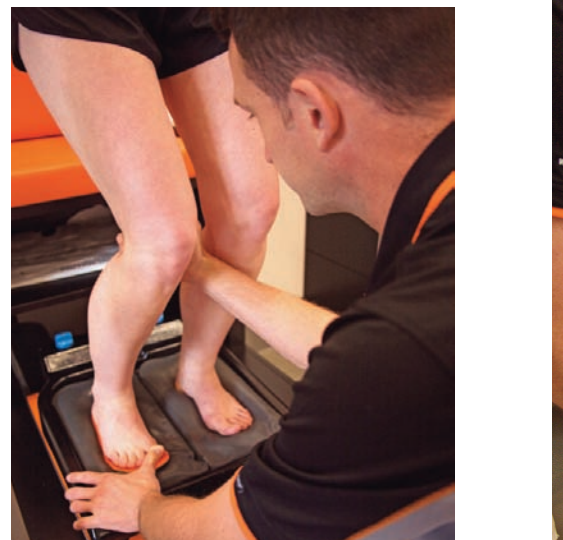
While some runners are enormously brand-loyal [this year was the first time for seven years I ran in anything other than Asics: Ed], a bad shoe can put them off for life. With shoe companies constantly reinventing their products with new technology, not all the changes are necessarily an improvement.

So what makes a good running shoe? "The most successful shoes are ones where the perimeter of the sole extends beyond the outer edge of the upper portion of the shoe," explains Danny.

After that, he says, it's the density of the EVA, the stiffness of the mid-foot bridge and how the upper encases the foot.



Results are analysed to show how your foot functions



The information is used to create a bespoke insole



Stefan Lubomirski de Vaux 2007
www.lubomirski.co.uk



Fitting the finished article

Profeet works with a number of major shoe manufacturers at the early stages of shoe development and is on hand to advise about biomechanics and how the shoe might perform.

Above all, its role is to help people carry on running. "We are injury specialists and deal with people of all standards and at all stages of their running careers," says Danny. "Often, we are the Last Chance saloon for people who are desperate to overcome their injuries. We are, however, trying to educate people first and foremost to prevent them from being injured.

"The amount of injuries in people we see pre-marathon is amazing. This is often because they are wearing incorrect footwear, are running more than they ever have before with no advice (hence repetitive stress) and are not stretching properly.

"The key is getting them to understand that being in the perfect position to run the race is where they want to be – not standing on the start line wearing the wrong shoes and carrying an injury."

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The Profeet process

- The analysis starts with being filmed as you run on a specialist treadmill. This is done barefoot to show your natural running gait and then in shoes to show how they affect your movement.
- Your feet are then scanned to show pressure on landing and the direction your foot takes.
- Results are then analysed to show how your foot functions: from this, the Profeet team can decide on the best running shoe to suit your style.
- The information is used to create a bespoke insole using silicon pads that mould to your feet.
- The insoles are then heated up and you stand on them in the mould.
- They are then cut and ground to fit your shoes. It's important to break them in gently and rotate between the new insoles and the original ones.

For more details see: www.profeet.co.uk