



SMART FABRICS

You have no more excuses. These high-tech clothes let you train in the rain. Or in freezing weather. Or when it's too warm. **Toni Krasicki** reports.

You've probably heard one of these excuses or even used it yourself: "Can't train today, it's raining!" Or "It's so cold I'll probably suffer a muscle tear." Or "It's too hot out there, I'll melt." Advances in fabric technology are starting to remove the opportunity for these excuses. There are smart fabrics on the market that will keep you dry, insulate you from cold or keep you cool in the heat.

Stay dry in the rain

Under Armour's Storm products are a perfect example of the high-tech fabrics now being introduced into activewear and sportswear by major brands, a development making training clothes even more functional.

Despite our scepticism, the Under Armour representative was insistent: the Storm Hoodie really *was* rainproof. So when rain began to come down one recent weekend we put one on and went for a run.

At first, the Hoodie didn't seem that rainproof – the water appeared to accumulate on it in the form of thousands of little beads. But then, magic: a shake of the arm and the beads flew off as in a centrifuge. As we took shelter under a tree, and shook all the water off, the hoodie became miraculously dry.

Under Armour's Storm waterproof technology uses a durable water repellent (DWR) finish on fabric that repels water. But the superstar material that's been licensed



Vanessa Gospel, a Fitness First PT, stays dry with an Under Armour Storm Jacket as the props department rains water on her.

Photography by Scott Ether

by many makers of rainproof training clothes is Gore-Tex, basically a complex, multi-layered breathable fabric with a DWR coating which repels water but lets the skin breathe.

The company that owns Gore-Tex also makes sports gear, including the Gore Bike and Gore Running Wear collections of waterproof cycling and running clothing.

Gore-Tex is so versatile it's also used in medical applications such as sutures, vascular grafts, heart patches and synthetic knee ligaments because it's largely inert inside the body, and the body's own tissue can grow through the material!

For the feet, look for shoes that have an upper Gore-Tex lining, like the Saucony GTX range, Brooks Ghost 6 GTX or the all-terrain Adrenaline ASR 10 GTX. The Climashield lining in the Salomon Speedcross 3 CS uses a different technology (AquaBan) which captures moisture rather than repels it, transporting it out and away from the body.

Stay warm (and dry) when cold

When the temperature drops, the secret of staying warm outdoors is often in the layering. Unless, of course, you go for Columbia's Electro Interchange Jacket, which actually has a battery controlled three-setting Omni-Heat Electric control system that powers heat throughout the jacket.

Those of us who want to generate heat with movement may look at other more lightweight and breathable options.

Under Armour is making a point of standing out in this functional sportswear space – its most advanced cold weather products are its ColdGear Infrared clothes, which use a light and flexible ceramic material that absorbs body heat to keep you



THE UNDER ARMOUR STORM HOODIE



Adidas' Climachill T-shirt has titanium fibres woven into the fabric. They work together with tiny aluminium cooling spheres to dissipate heat and keep you cooler in hot conditions.



noticeably warmer for longer.

Similarly, Zoot has incorporated several innovative fabrics in its performance wear. Its MEGAHEAT technology boasts moisture controlling capabilities, keeping you warmer by simply keeping you drier.

Through a chemical process, the sweat wicked away from the body is used to generate heat back to you, and the fibre in the fabric can also amplify the sun's ultraviolet rays into readily available heat, boosting the skin's thermal warmth.

Nike's AeroLoft technology attempts to keep exercisers warm without overheating them. Debuting in the Nike AeroLoft 800 Vest, it involves an ultra-light insulating layer composed of perforated down.

Combined with moisture wicking Dri-FIT fabric inside and shoulder panels for breathability, movement by wearers of the vest also activates ventilation, which allows heat to escape from minute holes between the down chambers.

Stay cool in the heat of summer

For performance wear, Adidas has developed the Adidas Climachill range, which uses fabric with a special "SubZero" flat yarn that contains titanium to maximise the fabric's surface contact with the skin.

In addition to the yarn drawing heat away from the body, tiny aluminium cooling spheres are strategically located on the garment to correspond to where the body needs to be cooled down most. You definitely feel the spheres when they make contact with the skin.

Nike's Dri-FIT microfibre polyester fabric wicks moisture away from the

body so it can evaporate, as does Reebok's PlayDry technology that uses ventilation, moisture management and fabric construction to help aid the release of heat.

Yoga wear giant Lululemon, has created many tops and bottoms in its range, including Luxtreme and COOLMAX fabrics that are both lightweight and are composed of sweat-wicking properties.

Stay odour-free

Not everything has to be space-age tech. Sports gear made from merino wool reduces the opportunity for odours to develop by quickly absorbing sweat (wool can absorb up to 35% of its own weight in liquid) and keeping it away from the skin and, therefore, odour causing bacteria.

Also, studies show that bacteria are more attracted to the smooth and positively charged surface of synthetic fibres than the scaly merino wool fibres.

New Zealand brand Icebreaker has a range of Merino fitness wear including tights and tops. **F**