## **life**

# Supporting act

A good bra can be an essential asset when exercising. Fitpro looks at how to get the right support.

earing a sports bra is important for all women, regardless of their size, to ensure they get the most from their workout and prevent long-term damage to their bodies. Without this, women may be exposed to exercise-related breast pain and even permanent breast sag.

According to one report, up to 72% of exercising women report breast discomfort while exercising.<sup>1, 2</sup> Discomfort can include breast pain created from a bouncing motion and skin chaffing, both of which may lead to a reduction in a woman's performance.

Although research by Shock Absorber<sup>3</sup> has shown that, of the women who wear a sports bra for exercise, 85% stated that it helps to improve their enjoyment of exercise, it also reports that 44% of women who exercise regularly do not wear a sports bra.<sup>3</sup>

### **Breast composition**

It is a common misconception that the breasts contain muscle. In fact, the breast is a mass of glandular, fatty, and fibrous tissues positioned over the pectoral muscles of the chest wall, attached by fibrous strands called Cooper's ligaments. A layer of fatty tissue surrounds the breast glands and extends throughout the breast. It is that fatty tissue which gives the breast a soft consistency.<sup>4</sup> With the average 36C-sized breast weighing 300 grams, uncontrolled movement during exercise can put excessive strain on this fragile support structure.



#### Sports bras vs normal bras

Research commissioned by the bra manufacturer Shock Absorber looked into breast bounce while treadmill running up to 20km/hour in subjects from an A to G cup. It compared bounce in women with no

bra, a normal bra, and a Shock Absorber sports bra.

In the study<sup>5</sup> conducted by Dr Joanna Scurr, head of biomechanics at the University of Portsmouth, retro reflective markers were positioned on the body and 3D movement was tracked using four infrared cameras (shown by the red markers).

The results showed that, on average, the breast moves by 9cm when running without a bra. At the most extreme end, a G cup can move up to 14cm while exercising, and even an A cup can move up to 4cm. This movement is reduced by up to 78% when wearing a Shock Absorber RUN bra, whereas wearing a normal bra only reduces this bounce by up to 38%.

This reduction can be seen in the diagram below (the movement shown by the infrared markers).

### Benefits of a sports bra

Sports bras are specifically designed to offer added comfort and support for women while they are exercising. They offer protection for the key pressure points and hotspots identified during sport:

- Shoulders: straps can dig in and cause irritation
- Between breast: sweat collection can cause irritation and chaffing can occur if breasts are pushed together
- Nipple rub: seams across the nipples can cause chaffing
- Under arms: bulky seaming can rub against inner arm causing burns
- Underband: the underband can cause irritation around the rib cage



Sports bras are often made with sportsperformance materials. This means that they are made with breathable materials that pay special attention to hotspot areas on the body, such as between and under the breasts. This allows air to circulate to the skin, which is essential to keeping cool while exercising. The material is also moisture wicking, which means that it will draw sweat away from the body and eliminate rubbing, and is quick dry to keep the body temperature regulated. The fabrics and fastenings are also stronger and more durable than that of a normal bra. They are abrasion-resistant fabrics which minimise fabric piling so the bra will keep its shape, support structure and look for longer. Fp



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