

Client handout

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When to change your training shoes

Training footwear has evolved significantly in the last decade. We no longer expect to have one pair of trainers that carry us from casual wear to gym to running. We expect more from our footwear and rely on its performance support more than ever before.

When looking to invest in training shoes, the choice can be overwhelming: from cross trainers to distance running shoes, from trail shoes to lifting shoes, the choices are endless. We benefit from sports stores that have treadmills and skilled staff to assist us in purchasing the correct shoes for our sport and requirements. The question I am often faced with is how do you know when your shoes need replacing?

A good supportive shoe that is fit for the purpose you're using it for can be a huge asset to training but, when these shoes begin to wear, the support they once offered can now be a hindrance to training.

I recommend to my clients to consider how they use their footwear. Are they being used casually, as well as for training? Are they stored in your gym bag with limited air? Are they thrown in the boot of the car between sessions, so you know you won't forget them? Are they thrown in the garage or cupboard after a wet run? All of these factors will impact on the speed of deterioration of your footwear. The foam use in training shoes varies in density and composition. Extreme temperature changes or being left damp will increase the speed with which this foam deteriorates. The cushioning and support this foam provides is one of the biggest benefits but, like all equipment, it needs to be used, cleaned and stored correctly to prolong its useful life.

A typical running shoe is expected to last 300-500 miles; at first thought, that may seem like a lot, but consider a runner who completes three runs of six to 10 miles a week, who also uses these shoes for the gym, for travelling to and from the gym and for casual walks with the family. This mileage then begins to add up. Just like the tyres on your car, a regular inspection is necessary to check for wear and tear and damage.

So, what should you expect to see and what are the signs of excessive wear?

Start by inspecting the top of your shoes: look at the creases created by wear in the top, as this informs you of the movement of your foot in this shoe. Does it crease evenly across the toe box, indicating good use of the forefoot, or does the flex bias towards the little toe inform wear load is transmitted through the lateral foot into the ground? Are there holes wearing in the upper that could indicate rubbing, compression or gripping of your toes? Does the upper shift over the edge of the sole of the shoe? This could indicate the shoe is too narrow or the shoe is designed for a forward motion and cannot withstand rotational movements. It may indicate the upper does not provide the support required for personal bodyweight or biomechanical flaws in technique.

Does the heel cup still have its original shape or has it been compressed on one side, showing rotation of the heel or collapse of the midfoot? Are there holes developing on the inside from rubbing, showing the shoes are not snugly supporting the foot?

Next, look at the soles of your shoes. Inspect the heel edge for signs of excessive wear. Do you have high impact on the heel edge informing of an over stride or heavy foot plant? If the white above the sole is showing signs of wear, your impact force may be greater than the shoe is designed for. Study the tread of the shoe: look for where



the tread remains like new versus areas of heavy wear. Check for wear under your big toe – this is an essential structure for balance, stability and correct muscle activation. If this area looks as good as new, this may indicate a technique problem that over time could cause injury. Look for circular wear under the ball of the foot that may indicate an unwanted rotation on toe off or a twist in the kinetic chain that may tell of a stability issue in the lower limb.

By regularly inspecting our shoes, we not only identify if we have selected the correct shoe for our activity but we are also able to see if we have flaws in our biomechanics that may be exposing us to injury. Understanding the signs of wear can identify over- and under-active muscle patterns that can be addressed through training modifications before injury occurs. Early identification of wear can also ensure we keep our feet and lower limbs supported and don't risk overloading structures as the assistance offered by our footwear begins to diminish.

Mileage is only one factor to consider when looking at the most basic equipment for your sport. When comparison is made between signs of wear and mileage/hours used in a pair of shoes, a lot can be identified about the athlete and the effectiveness of the footwear selected. You wouldn't continue to train with faulty gym equipment, so why would you continue to train in faulty shoes?

So, when do you change your training shoes?

If the wear on them is beginning to look noticeable and your hours of wear are creeping up towards 300 or equivalent, then you should be looking to introduce a new pair of shoes. I recommend overlapping new and worn shoes, so your foot has a chance to adjust without a sudden shift in technology and cushioning.

A brief review of your shoes by your fitness professional can tell you more about your body and activity behaviours than many strength and fitness tests. Using your footwear as a tool to gauge activity, load and wear can be a valuable tool for correct exercise prescription.

About the author

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