

The Anatomy of a Running Shoe

Information for this article was provided by Nike.

Although running shoes have evolved significantly over the years, all contain a number of consistent features.

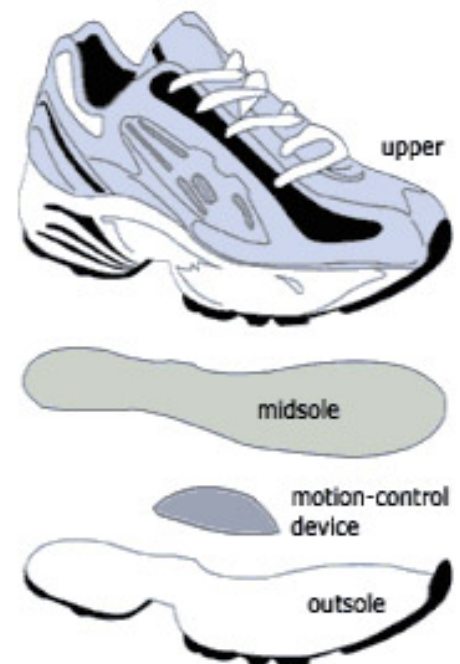
The outsole: This is the treaded layer on the under surface of the shoe, usually made from carbon rubber or similar material. It resists wears and provides traction. It may also have a studded or waffle design to enhance traction on softer surfaces.

The midsole: The most important part of running shoes as it is the cushioning and stability layer between the upper and the outsole. Nike utilizes a heat treated EVA (foam) to give a durable & cushioned ride. Often there is a dual-density midsole that has a firmer material on the inner side (medial side) to help limit pronation (rolling in) of the foot. Nike also uses an active secondary air cushioning system to minimize impact stress on the body.

The upper: This is the part of the shoe that wraps around and over the top of the foot. It holds the foot in place and is made of synthetic material that is light and breathable (to reduce heat from inside the running shoe). The tongue is to protect the top of the foot and cushion the pressure from the laces.

The heel counter: This is a firm and inflexible cup which is built into the upper of running shoes and surrounds the heel. It is usually very firm so that it can control motion of the rearfoot and stop the heel from slipping.

Post or footbridge: This is the firm grey material in the midsole which increases stability along the inner side (arch side; medial side) of the running shoe



Archbridge/ Midfoot Shank: TPU plastic piece that sits under the arch on the outsole to reduce torsion (twisting) of the midfoot.

