

Counseling Runners on Safely Transitioning to Minimal Shoes

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Minimal shoes have generated interest in the running community as a means to “run naturally” (1). Shoes that minimally interfere with the natural movement have high flexibility, low heel-to-toe drop (>6 mm), lightweight, low stack height, and no motion control and stability elements. Running with less support does increase the load on the feet (1). Thus, abruptly transitioning to minimal footwear can increase impact loading and the risk for injuries, such as foot bone edema and metatarsal stress fractures (2,3). Accompanying changes in technique (soft and quiet landings, shorter lighter steps) are important to prepare for safe running in minimal shoes (4). Moreover, muscle strength and endurance are key to sustaining good running technique and reduce injury risk (4). Assuming that running technique, strength, and endurance are appropriate, two general approaches can be used to counsel runners with safe shoe transition: 1) gradual exposure to minimal footwear into the running program over a period of weeks or using a “transition shoe” (heel-to-toe drop of 6 to 12 mm) before a minimal model (5) with no reduction in training mileage, or 2) significant reduction in running volume using the new minimal shoe and gradual progression in mileage over time. Both techniques can reduce the risk for injuries related to abrupt shoe changes and can meet the needs of runners with different short- and long-term goals. With either approach, it is important to counsel the runner that the transition will take several months to complete. A slow transition is critical to allow bones, muscles, and tendons to adapt to the new loading pattern and reduce the risk of injury.

For Runners Not Willing to Reduce Running Distance:

Make a gradual shoe transition with no decrease in mileage

- For the first 3 to 4 wk, wear transition shoes around the house and with walking, no running.

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- Starting after week 4, slowly incorporate the new shoe into weekly mileage. This can be accomplished by wearing the new shoe during a short run and gradually increasing the time or distance. Start by incorporating the new shoe with no more than 10% of the run time or distance and increase by 10% per week until the transition to the new shoe has been completed.

For Runners Willing to Reduce Running Distance:

Adopt the new shoe, cut mileage distance, and retrain

- Wear the new minimal shoe with walking and nonimpact exercise for the first 4 wk as above.
- Use the new shoe for all running activities once the initial adaptation period has been completed. The return to run program needs to be very gradual, simulating a protocol as would be used from return from injury. In the example below, perform intervals until the total time has been reached. The example is for three sessions per week. Once week 8 has been completed, increase volume by no more than 10% per week, and a fourth day can be added if desired.

Week	Run (min)	Walk (min)	Total (min)
1	1	3	30
2	2	3	30
3	3	2	30
4	4	2	30
5	5	2	30
6	6	2	30
7	8	2	30
8	10	2	36

- To maintain cardiorespiratory endurance, perform nonimpact cross-training to supplement for the reduction in running volume. For land-based activity, wear the new minimal shoe to continue to improve foot muscle strength and adaptation.

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