Proper Equipment Can Increase Training Comfort and Help Limit/Mitigate Injuries

- Aches and pains during the first few weeks of practice are common, but ongoing training in improper footwear can result in more severe/serious injuries. The right equipment is a starting point for better training and reduced injury.
- Shoes have become very technical; there is a “right shoe” for every foot type and running/walking gait. Shoes labeled "running" in a mall store are typically not designed for the volume and intensity of training a HS runner will do.
- When purchasing shoes, consider:
  - Gait cycle, foot strike
  - Foot dimensions
  - Weekly mileage
  - Typical running surfaces
  - Body type and size
  - Injury history

Potomac River Running (=PR=)’s Gait Analysis Process
Training shoes are designed to function differently and should be selected based on the athlete’s footstrike, giving consideration to propensity for injury. Athletes with a neutral footstrike and a high or rigid arch tend to need a “cushion” or “neutral shoe”, while athletes who overpronate (roll or twist slightly to the inside as their foot strikes the ground) typically require a “stability” shoe designed to correct the inefficiency. As they become more efficient, they may need “less” shoe. Every shoe company makes one or more shoes in every category; once the category is identified, the athlete can compare comfort/fit in several shoes designed to do the same thing functionally. At =PR=, we analyze gait and footstrike in order to provide guidance on the best category of shoe. Our process is:
  - Watch athlete run/walk in a “neutral” shoe at normal exercise pace on our treadmill. (A camera points at the runner’s feet and a video screen allows us (and you) to see what is happening
  - Identify unique characteristics of foot-strike – over-pronation, supination, forefoot-striking, etc.
  - Discuss exercise history and current regimen, injury issues, etc.
  - Consider arch height and foot flexibility when relevant
  - Choose functional shoe category to match gait and other characteristics
  - Select styles consistent with foot shape and dimensions, have the athlete determine which shoe feels best based on comfort, then revisit the function of the shoe on the treadmill if necessary.

Shoe Fit, Wear, and Care
- Because running/walking shoes are typically cut shorter than dress shoes, and your feet swell with exercise, expect that training shoes will size up between ½ and 1½ sizes. Check for about a “thumb’s width” of space between the front of the toe and the front of the shoe.
- Shoes typically last between 300-500 miles or about 6-7 months when worn outdoors. One pair of shoes should be sufficient for the typical HS training season, but if the athlete is doing off-season training, pay attention to shoe wear. Sudden, atypical aches and pains (during a consistent exercise routine) can indicate that the shoe is wearing out.
- Shoes should not be put in the washer or dryer. Wash them by hand and stuff them with newspaper to pull out most of the moisture. If they need to be even drier, place them in front of a cool air source like a fan.

Competition Shoes
A training shoe can be worn for both training and racing, but many athletes also purchase competition shoes. A competition shoe is a minimalistic, light shoe designed specifically for racing. Competition shoes are event-specific, though there are some multi-purpose options appropriate for athletes participating in varied events and/or still determining their area of focus. The outsole is designed to reduce slipping (or enable smooth spinning for throwers); many shoes can have spikes added when appropriate/ permitted to further improve traction. Competition shoes are typically less expensive and, when cared for properly, do not need to be replaced (aside from the spike pins) unless the athlete’s foot grows.

=PR= and High School Athletics
Many of us at =PR= benefited greatly from our experiences as HS track & field athletes, and we try to give back to the sport by supporting all HS runners with a 15% discount at our store. Simply indicate that you are a HS athlete when you come in and you will receive this discount. We occasionally host Team Nights, sponsor meets and events, and offer other promotions and giveaways for HS athletes as well.

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