

GEAR BY BRIAN METZLER

# CUSTOMIZED KICKS

## SHOE MANUFACTURERS UP THE ANTE ON BIOMECHANICS

**IT USED TO BE** that you'd go to a running shop, try on three or four pairs of shoes with help from a fit expert and walk out the door with a pair that generally fit your feet and gait style.

This spring, Somnio Running is launching a line of customizable trainers aimed at meeting the precise needs of individual runners. Using a series of interchangeable footbeds, cushioning inserts, varus wedges and three base models (neutral, stability, motion control), the shoes can be adapted to the specific biomechanical needs of a runner. (The correct combination of footbeds, inserts and level of cushioning will be facilitated by a specially trained salesperson at a running shop.)

Primary among the company's aims is vertical alignment. Using a specialized shoe-sizing device that uses a laser light to project a vertical line on a runner's leg, a store's shoe fitter can begin to assess what type of inserts to put into the shoe.

The upstart company is spearheaded by **SEAN SULLIVAN**, who helped create the Body Geometry line of bike gear and apparel for Specialized, as well as the first line of running shoes for Pearl Izumi, and has had significant input from the Boulder Center for Sports Medicine and **DR. ANDY PRUITT**, a renowned biomechanics guru at the Boulder Center for Sports Medicine and former athletic trainer for Nike's Athletics West elite running program. "We don't want to tell you how you should run or change the way you run," Sullivan says. "We want to get you in shoes made for your feet and your running gait."

About 50 or so stores that will initially carry the new shoes, which will retail for \$110-\$125.

Several other brands are offering innovative ways of controlling pronation, supination and other biomechanical issues. Here's a quick run-down:

➤ K-Swiss designed the K-Swiss Run One miSOUL Tech (\$125) so most of the midsole mass — the variety of materials that provides cushioning and stability — is in the removable footbed. That gives runners the option of morphing the shoe from a lightweight trainer to a cushioned shoe with moderate stability by interchanging the Light 1.0 and Cushion 1.0 footbeds supplied with the Run One miSOUL chassis. In July, K-Swiss will introduce a Stability 1.0 footbed (\$40) with additional posting on the medial side, as well as an Orthotic 1.0 insert (\$20) that fills the cavity of the shoe and can accommodate after-market custom and semi-custom footbeds.

➤ Newton Running has incorporated "universal posting" into several shoes, including its Motus stability trainer (\$175), Distantia performance racer (\$155) and Motus AW all-weather trainer (\$175). Each has a firm-density foam post that runs from mid-heel to the front of the metatarsals on both the medial and lateral side of the shoe. The idea is that the shoes will accommodate any type of gait, from moderate overpronator to neutral to moderate supinator, with a lightweight, super-stable midsole, while not putting too soft of a platform on the opposite side of where the support is needed.

➤ In its new LunarGlide+ (\$100; available in July), Nike has developed a trainer engineered to manage underpronated to overpronated footstrike patterns specific to each individual without traditional midsole posting. Instead, using the cushioned but very stable midsole developed for last year's LunarTrainer, the new shoe incorporates an increased thickness of firmer foam in the medial side of the footbed with an increased thickness of softer foam in the lateral side of the footbed. The layers are alternately beveled toward the opposite sides, allowing the sockliner to sit on a level platform. It's being positioned as an everyday trainer, but it weighs in under 10 ounces. **RT**



K-Swiss (left) and Somnio (right) are among the brands challenging the conventions of shoe design.

## STUDY SAYS SHOES DON'T PREVENT RUNNING INJURIES

A study from the University of Newcastle in Australia has found no scientific evidence to support claims that commonly recommended running shoes prevent injuries in runners. The study, published this spring in the *British Journal of Sports Medicine*, looked at shoes with elevated cushioned heels and anti-pronation systems.

"Since the 1980s, distance running shoes with thick, heavily cushioned heels and features to control how much the heel rolls in, have been consistently recommended to runners who want to avoid injury," said Dr. Craig Richards, one of the lead researchers. The research team didn't identify a single study that has measured the effect of shoes with pronation mitigation features on either injury rates or performance.

Several previous studies have found that between 37 and 56 percent of recreational

runners become injured at least once each year, mostly in the knees, legs and feet.

Richards said unless shoes are tested like other medical treatments or therapeutic devices, health professionals will not know whether the distance running shoes they are recommending are beneficial, harmless or harmful.

The study didn't identify specific models tested, nor did it say whether a gait pattern that reduces heel-strike impacts will help offset running injuries.