

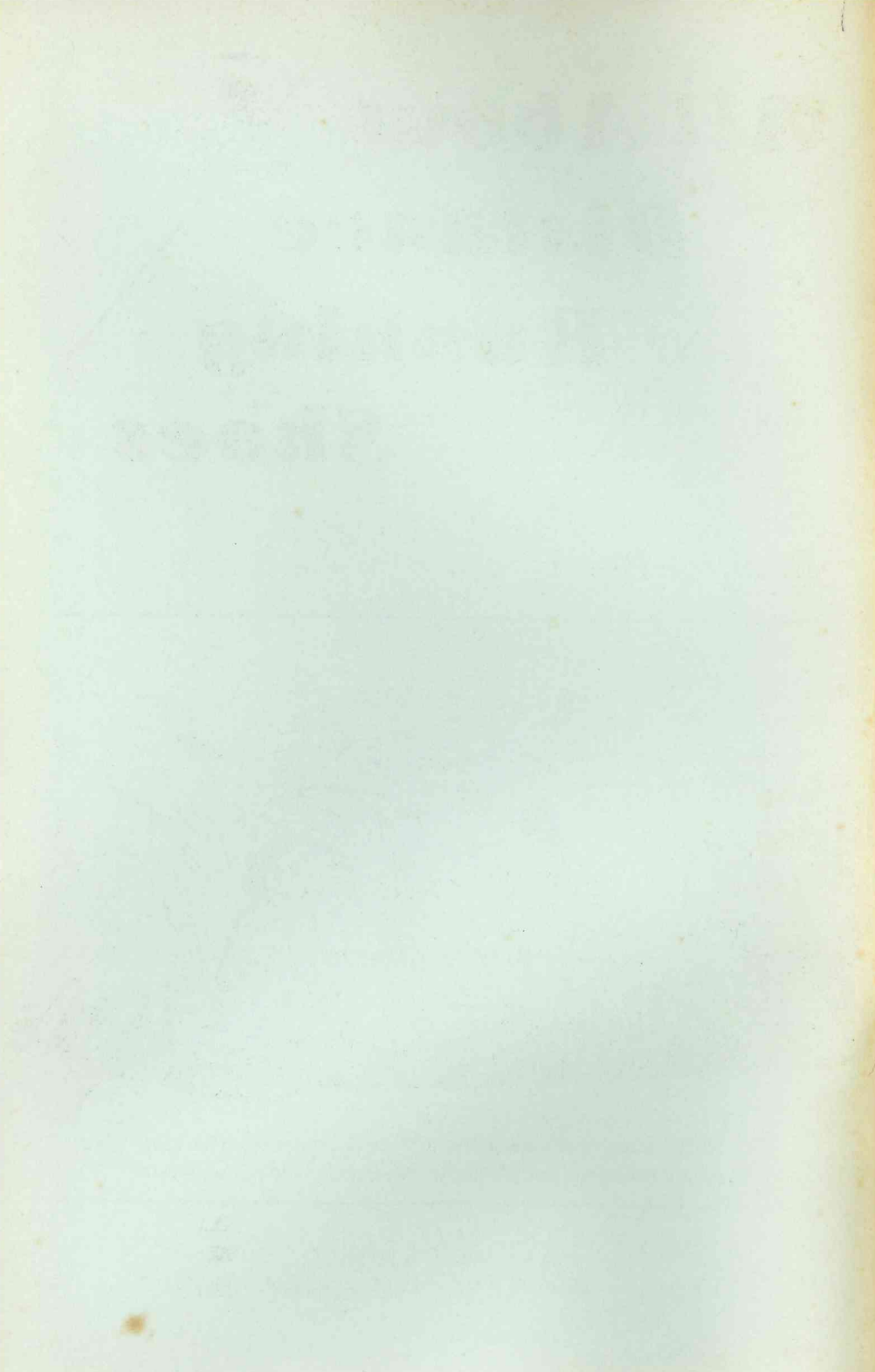
All About Distance Running Shoes

Booklet No. 1



“... Whatever a runner’s disability, it probably stems from his foot. It’s a marvelous mechanism, but it’s fragile. Wrap and handle it with care.”

**A RUNNER’S WORLD
BOOKLET OF THE MONTH**



Runner's World
"Booklet Of The Month" No. 1

JULY, 1971

***All About Distance
Running Shoes***

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ART CREDITS: Bill Canfield of the Red Bank (NJ) Register supplied the cover cartoon and the one on page 7. Jeff Loughridge did other illustrations. Photos on page 41 are by Don Wilkinson.

FOREWORD

We aren't here to sell shoes. The intent of this booklet is to strip away the mask of advertising slogans and give an honest appraisal of shoes—blemishes and all. In essence, this is a consumer's guide to the purchase, wear and care of distance running and walking shoes.

These aren't appraisals pulled out of the blue by *RW* staffers. They come from people with definite vested interests. The runners and walkers who use shoes—whose races and foot health are intimately tied up in that thin layer of rubber separating them from the solid earth.

We trust the opinions of shoe wearers. That's not to say the shoe companies can't be trusted. It's just that their vested interests are somewhat different, and we didn't want to be obligated to paint rosy pictures of their products. Therefore, we solicited no advertising and didn't accept any.

We gleaned the bulk of the material from detailed questionnaires enclosed with the March 1971 *Runner's World*. Over 800 people—about 15% of the subscribers and maybe a quarter or more of those who are active athletes—responded immediately. Though our sample is limited to *RW* readers, it provides an excellent cross-section of the shoe-wearing athletic public. Athletes from the whole spectrum of ages, abilities and areas are represented. Thanks to all of you.

Thanks, too, to the shoe companies. With a couple of exceptions, they helped greatly. They're often accused of stalking the quick dollar at the expense of the consumer. We didn't find this to be so. Most we talked with—many of them being runners themselves—are sincerely interested in satisfying the shoe wearer. And who won't admit that we're a hard bunch to satisfy?

Distance runners and distance walkers are continually chasing illusions. The perfect race. The perfect training method. The perfect shoe. We may never find any of these, but maybe we can move a bit closer to perfection.

In the distance athlete's mind, shoes may rank a close third in importance behind racing and training methods. This concern is quite understandable. We live by our feet. Each foot hits the ground some 800 times a mile, and the only thing between it and the hard earth is the shoe. Minor problems multiplied by 800 or 8000 steps can be catastrophic.

It doesn't take a PhD in physiology to know that as runners and walkers log more and more miles on hard surfaces, leg and foot miseries associated with shoes are going to increase proportionally.

It's clear that the best possible performances demand the best possible footwear. It isn't so clear just what the "best possible footwear" is. We hope this booklet offers clues.

THE SHOES YOU USE

Distance running shoes, like the athletes and the sport they serve, have come a long way in a short time. The shoe revolution has fed on the road-running revolution, and vice versa.

As recently as 10 years ago, few runners ventured far from the boundaries of the track. The pain of doing it often outweighed the pleasure, as they were forced to slog along in a pair of sneakers designed for basketball or tennis. Or they might own a pair of warmup flats, a cheaply-made version of a track shoe with a sole slapped on that was as soft and flexible as a piece of mahogany.

For a variety of reasons and purposes, runners took to the roads in the mid-1960s. They demanded and got better shoes for their work. At the same time, improved shoes made prolonged road running more inviting.

The April 1967 *DRN Special Shoe Issue* listed 15 models of running flats—a distinct improvement in both number and quality. But even then, the athlete had to have special sources to latch onto a pair of even the best-known Adidas, New Balance and Tigers.

Just four years later, an aspiring runner had to go little farther than his local sporting goods store to find a choice of quality shoes. They have become so attractive and comfortable that they're the "in" thing to wear. Athletes and non-athletes of all descriptions wear "our" shoes. Where tennis and basketball jocks once loaned us their sneakers for road work, they now use our running flats. That's how far the industry has come in 10 years.

Some 800 shoe-wearers mailed back the questionnaires enclosed in the March 1971 *Runner's World*. Mr. Average from this sample (about 15% of the *RW* subscribers at that time) is a road runner, normally one who competes, 29 years old, 5'9" tall, weighing 145 pounds. He has been running for not quite six years and averages nearly 50 miles a week. With this background, he's eminently qualified to comment on the merits of distance shoes.

There are obvious problems in publishing a book with 800-plus "authors" because there isn't any uniformity of opinion. The best we can do is offer highlights and general trends that emerge from their detailed observations.

The clearest and perhaps most significant information is simply a count of what shoes they wear. Because their comfort and performance depends on these shoes, figures in this survey speak loudly. Distance people are a pragmatic lot. They use what works, what feels good, what fits their wants and needs. Their brand-name loyalty is extremely low, as shown by the fact that a sizeable percentage of our sample owns two or more pairs of shoes of two or more different brands.

They listed 66 different models of flats from 32 separate companies when questioned on their preferences. Here's a rundown of those choices, with the percentages who wear each for racing and for training.

Brand and Style	Race	Train			
ADIDAS	18.5%	43.3%	Jogster	2.5%	3.6%
(unspecified)	1.6%	2.6%	Trackster I	0.6%	0.2%
Antelope	1.1%	0.9%	OURS	---	0.1%
Gazelle	2.4%	9.9%	PATRICK	0.1%	0.4%
Italia	2.6%	5.9%	P.F. FLIER	---	0.1%
Kansas	---	0.7%	PUMA	2.2%	3.2%
Marathon	1.9%	0.9%	(unspecified)	1.0%	1.9%
Mexicana	2.2%	5.5%	Blau	---	0.1%
Munchen '72	---	0.4%	Crack	---	0.1%
Olympia	3.6%	12.2%	Jogger	---	0.2%
Rom	1.7%	3.1%	Marathon	0.5%	---
Special	0.6%	0.2%	Medal	0.4%	0.2%
Superstar	---	0.2%	Osaka	0.1%	0.4%
Tennis	---	0.1%	Oslo	---	0.1%
Vienna	0.2%	0.5%	Rome	0.1%	0.1%
Walking Special	0.5%	0.2%	QUICK CAT	---	0.1%
ALPINE	---	0.1%	Bob Wolf	---	0.1%
Hiking Boots	---	0.1%	RED BALL JETS	---	0.1%
B.F. GOODRICH	---	0.2%	REEBOK	1.0%	0.5%
Jack Parcell	---	0.2%	(unspecified)	0.2%	0.2%
BROOKS	---	0.1%	Dura-Ripple Gazelle	0.1%	0.2%
CONDOR	---	0.1%	World-10	0.6%	---
CONVERSE	0.2%	0.6%	RIDDELL	0.1%	0.6%
COOPER	---	0.1%	(unspecified)	0.1%	0.4%
E.B. SPORT INTL.	1.7%	9.9%	AXO	---	0.2%
Lydiard Rd. Runner	1.6%	9.9%	ROAD KING	0.5%	2.2%
Race Walker	0.1%	---	Road King	0.5%	2.1%
ENDICOTT JOHNSON	---	0.1%	Road Racer	---	0.1%
Ranger	---	0.1%	SEARS	---	0.1%
HERMANN	---	0.1%	Model 1970	---	0.1%
Survivor Boots	---	0.1%	SPOTBILT	---	0.1%
HUMMEL	0.1%	0.2%	(STREET SHOES)	---	0.1%
Diamant	0.1%	0.1%	(TENNIS SHOES)	---	0.1%
Trabant	---	0.1%	TIGER ONITSUKA	58.6%	69.2%
HUSH PUPPIES	---	0.1%	(unspecified)	2.6%	4.2%
KARHU	1.0%	2.2%	Bangkok	5.7%	7.1%
(unspecified)	0.2%	1.6%	Boston	10.5%	11.0%
Jogger	---	0.2%	Cortez	4.8%	25.6%
Mexico	---	0.2%	Cub	1.6%	0.2%
Milerific	0.7%	0.1%	Marathon	28.9%	7.4%
KEDS	---	0.1%	Road Runner	5.0%	6.6%
LICO	---	0.1%	Simba	---	0.9%
NBA	---	0.4%	Tahoe	0.2%	2.9%
(unspecified)	---	0.2%	Vickka	---	0.9%
Leandro	---	0.1%	WILSON	---	0.1%
NEW BALANCE	5.0%	7.6%	Coaches' Ripple	---	0.1%
(unspecified)	1.9%	3.9%	WOLVERINE	---	0.1%
			Work shoe	---	0.1%

In the following chapters, we'll get into examining many of these models. Arbitrarily, we've pulled out those shoes worn by 1% or more of the athletes who responded to the questionnaire. Also, there'll be a special supplement on promising new models which aren't yet available on a broad scale.

Popularity, of shoes as with any type of mass appeal, is a vague concept. "Most popular" doesn't automatically imply "best." Lots of factors besides intrinsic quality of the product come into play. Cost. Length of time it has been available. Number of retail outlets. Advertising. With this in mind, note the 10 most popular racing and training shoes.

RACING SHOES

1. Tiger Marathon—28.9%
2. Tiger Boston—10.5%
3. Tiger Bangkok—5.7%
4. Tiger Road Runner—5.0%
5. Tiger Cortez—4.8%
6. Adidas Olympia—3.6%
7. Adidas Italia—2.6%
8. New Balance Jogster—2.5%
9. Adidas Gazelle—2.4%
10. Adidas Mexicana—2.2%

TRAINING SHOES

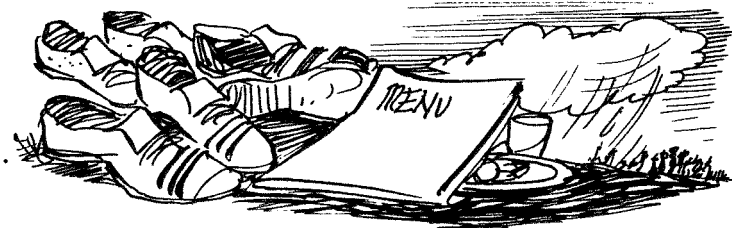
1. Tiger Cortez—25.6%
2. Adidas Olympia—12.2%
3. Tiger Boston—11.0%
4. Adidas Gazelle—9.9% (tie)
E.B. Sport Intl. Lydiard—9.9%
6. Tiger Marathon—7.4%
7. Tiger Bangkok—7.1%
8. Tiger Road Runner—6.6%
9. Adidas Italia—5.9%
10. Adidas Mexicana—5.5%

Relatively few of our surveyed runners compete or train at distances requiring spiked shoes. Only about 20% of them do. With such a small sample, it's hard to pass this off as a scientific indication of overall track shoe preferences. However, it gives some idea of what distance runners wear when they go to the track. As with distance flats, we'll give more details on the more popular types of spikes. They are these.

Brand & Style	% of Users	Brand & Style	% of Users
ADIDAS	81.8%	Tokyo	1.8%
Avanti	1.8%	Wonder Shoe	1.8%
Comet	1.8%	TIGER	15.1%
Interval	6.0%	Olympia XIX	11.5%
Meteor	15.7%	Most Popular Styles	
9.9	5.4%	1. Adidas Tokyo—39.7%	
Titan	6.6%	2. Adidas Meteor—15.7%	
Tokyo	39.7%	3. Tiger Olympia XIX—11.5%	
PUMA	14.4%	4. Adidas Titan—6.6%	
(Style unspecified)	3.6%	5. Adidas Interval—6.0%	
Brush Spikes	1.8%	6. Adidas 9.9—5.4%	
Collegiate	1.8%	7. Puma Mexico—3.6%	
Mexico	3.6%		

Because of the special needs of walkers and the limited number of walkers answering the questionnaire, we'll view their shoe situation in a separate article by a race walking specialist—Jack Mortland, onetime Olympian and now editor of *Ohio Race Walker* magazine.

After a series of articles on shoe wear and tear and care, the athletes we surveyed will get their say again. They dived eagerly into the question, "If you could design a new type of shoe, what features would you want included?" Who should know better than the people who've suffered through the unwanted features?

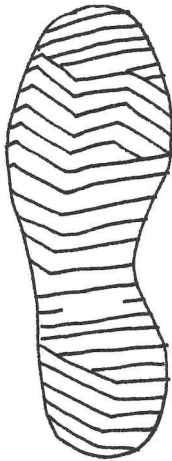


BASIC SHOE ANATOMY

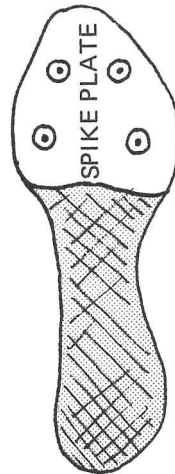
Before getting on to the descriptions of various brands and styles of shoes, a brief course in shoe anatomy is in order. We'll be throwing out some terms which may be confusing or unfamiliar.

Last—The form determining the shape of the sole, which is the foundation of the shoe. Flats and spikes have different lasts.

FLAT LAST



TRACK SHOE LAST

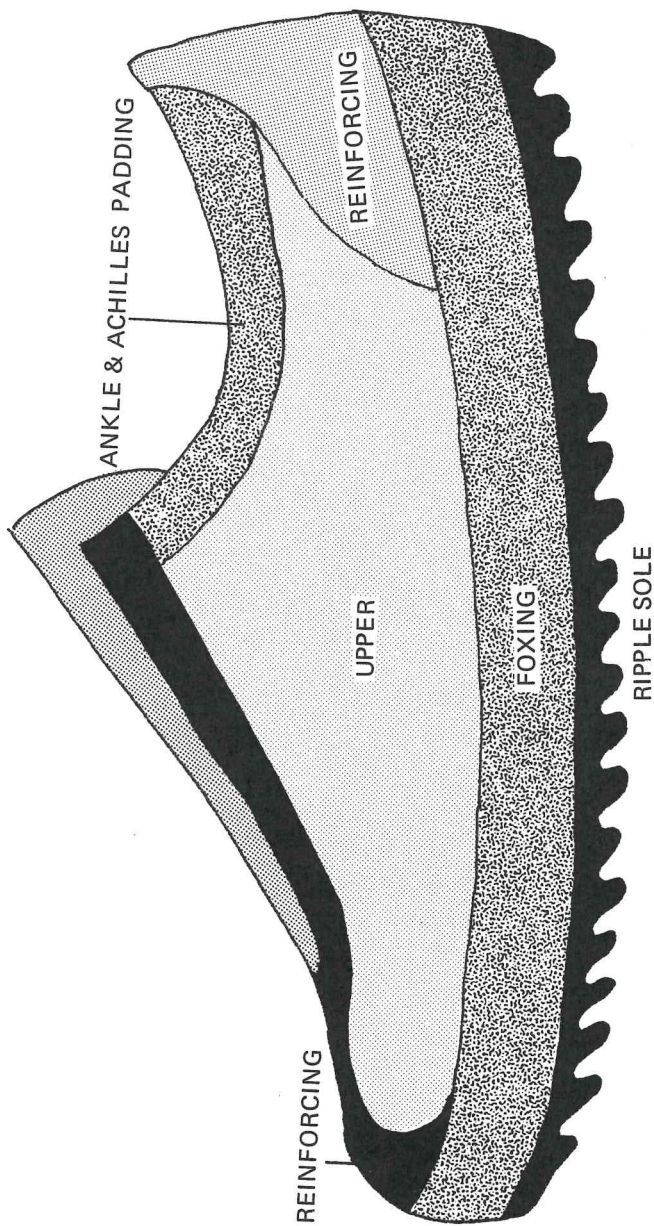


Sole—The bottoms of shoes have several layers; two or more of the following:

- *Outer sole* which makes contact with the ground (always made of rubber for flats, but types of rubber vary. Few outer soles are smooth; most range from gently ridged to deeply rippled to give greater traction and more cushioning.)
- *Spike plate* which, obviously, holds the spikes of track shoes; usually made of plastic.
- *Midssole* beneath the outer sole for extra cushioning.
- *Wedges* of rubber which are generally used to elevate and cushion the heel.
- *Insole* which makes contact with the foot (usually fabric or leather).
- *Foxing* is the rubber rim going around the lower portion of the shoe, designed to give lateral support and to protect against weathering and wear.
- *Toe cap* which is partial foxing to slow down wear at this vulnerable area.

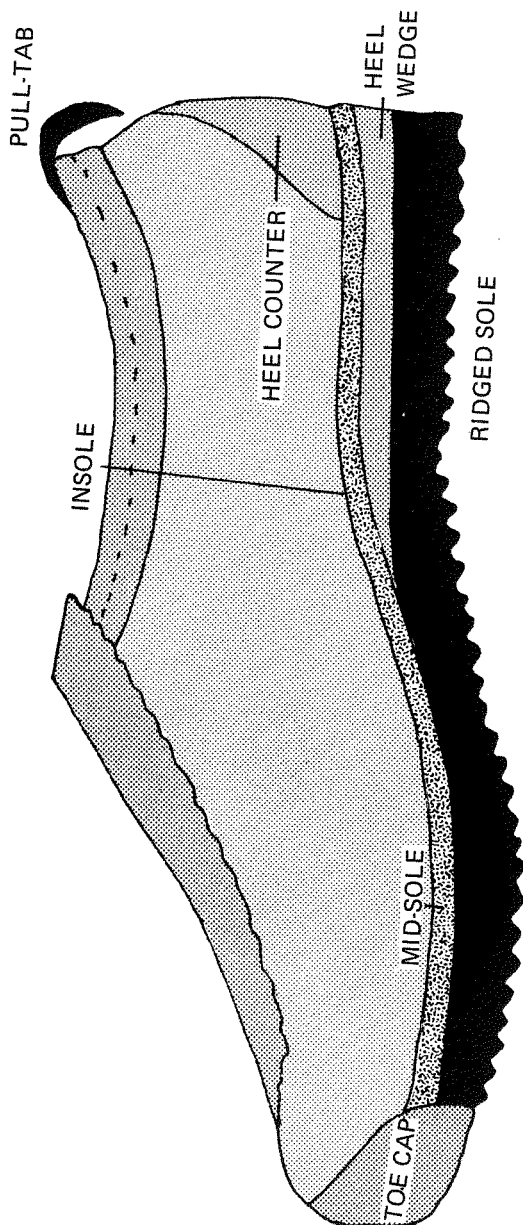
Upper—This, of course, is the material which holds the sole in the position where it can do its job. It can have any of several components:

- *Ankle and achilles tendon padding* –a cushioned rim which runs around the top of the shoe and protects the area.
- *Heel and toe reinforcing* which both supports the foot and



keeps it from breaking through at these points.

- *Heel counter*—an inflexible piece of material for heel protection.
- *Pull-tab* to assist in pulling on shoe.



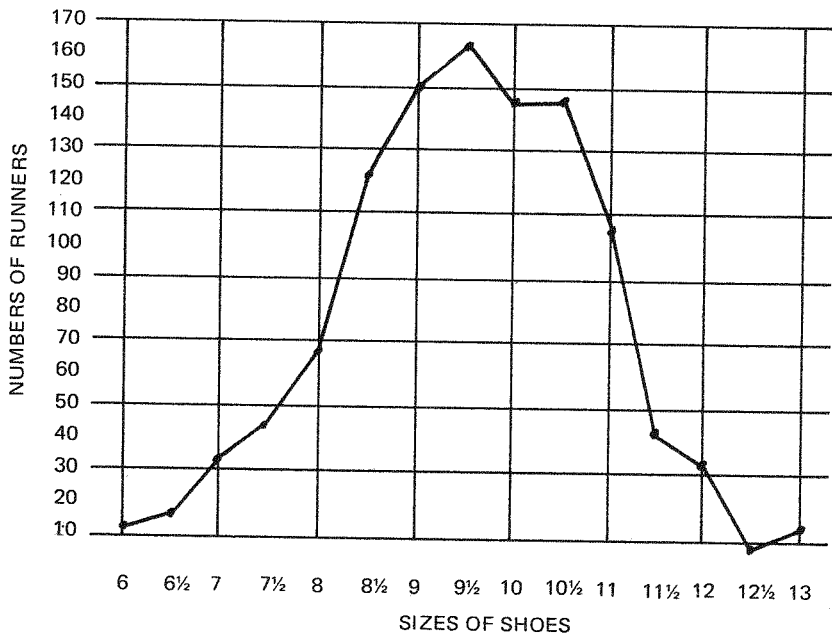
ROAD RUNNING FLATS

The athletes who buy and wear the shoes chose the ones we'll discuss in some detail here. It wasn't the editor's decision, except that he decided a brand had to be worn by 1% or more of the sample to qualify. Seventeen shoe models and eight companies reach that figure as far as road and cross-country running flats are concerned. Spiked shoes, walking shoes and models new to the market are described in separate chapters.

We'll run through the brands and styles alphabetically, giving general factual information on each shoe and a consensus of opinions from the questionnaires—both good and bad. One type of comment won't be included. On almost any shoe you could name, at least one person said, "The best shoe on the market!" Another called the identical shoe, "The worst thing available!" We're not making value judgments such as that. This is intended to give a summary of the shoes' features, and the specific things runners like and dislike about them.

Two vital considerations—price and size—merit special attention. The prices listed here are highly tentative. They're the *suggested* retail prices as of June 1, 1971. They're subject to change, some dealers may charge more, some may give discounts, etc. Taxes are added to some and not to others; some companies pay postage and others don't. The prices here give only general ideas and comparisons.

Sizes vary from model to model. An athlete who requires an 8½ in Adidas, for instance, may wear an 8 or 7½ in Tiger. The only way to insure perfect fit is to try the shoe before you buy. The graph below represents the



size breakdown of about 1000 runners—mostly male road runners—ordering a model of running flat whose sizes correspond with US street shoe sizes.

These are the sizes (men's, including halves) available by company:

Adidas—Sizes 1 to 14 (size 15 on special order).

E. B. Sport International—Sizes 3 to 13 (plus 2 and 14-15, special order).

Hummel—Sizes 3 to 12 (\$1.00 extra for sizes above 12).

Karhu—Sizes 1½ to 13 for men; 2 to 11 for women.

New Balance—Sizes 4½ to 13 in B and C widths; 6 to 13 in D and E widths (other sizes and widths on special order).

Puma—Sizes 6 to 13 in all models; 5 and 14 in some models.

Reebok—Sizes 7½ to 12.

Road King—Sizes 4 to 13½.

Tiger—Sizes 5½ to 13 in all models; 3 to 5 in some models.

ADIDAS

Manufactured: West Germany

Chief US Distributors: Clossco, Inc., 365 Reed St., Santa Clara, Calif. 95050; Hughesco, Inc., 5602 Dyer St., Dallas, Tex. 75206; Libco, 78 Diamond Rd., Springfield, N.J. 07081; Van Dervoort's, 1515 North Grand River Ave., Lansing, Mich. 48901.

“Imitation,” the Adidas ads say without much originality but with a heavy strain of truth, “is the sincerest form of flattery.” As a pioneer in the running shoe field, the West German Adidas was bound to be widely copied. It had been copied all the way down to its three stripes until the company cracked down on this infringement on its world-famous trademark. The handsome and widely-available shoes are the main ones from the running market to be generally worn by the non-running public.

Although Adidas road shoes aren't nearly as popular among runners as the spikes are, the brand still serves a healthy proportion of the market. Over 40% of our sample trains in this shoe, and seven individual models of the solidly-constructed three-strippers qualify for individual attention here.

Antelope

Style: Adidas Antelope (Model No. 308).

Uses: All-purpose racing and training shoe.

Sole: White-rubber ripple, with softer heel wedge.

Upper: Elk-leather, white with red and blue stripes; pull-tab on heel.

Special Feature: Made on track-shoe last for a more “foot-hugging” fit.

Weight: 11 ounces for a single shoe, size 8.

Suggested Price: \$13.95.

Athletes' Positive Comments: “Best traction of any flats I've worn”. . . Good cushioning.

Athletes' Negative Comments: "Couldn't stand up to day-to-day training" . . . Poor heel support.

Gazelle



Style: Adidas Gazelle (Model No. 321).

Uses: Primarily a training shoe, with trainers outnumbering racers by 4-1.

Sole: Ridged, microcell with harder rubber beneath; all-around rim of rubber foxing.

Upper: Velour leather, blue or red with white trim; padded ankle and achilles tendon.

Special Features: High-backed achilles tendon protector; extra-solid heel counter.

Weight: 10 ounces for a single shoe, size 8.

Suggested Price: \$19.95.

Athletes' Positive Comments: Soft uppers. . . "Cured my shin splints and joint pains" . . . soft, cushiony sole.

Athletes' Negative Comments: Uppers wear out too easily, particularly in bad weather. . . Rigid heel gave problems at first. . . Too narrow across toes, causing blisters.

Italia



Style: Adidas Italia (Model No. 302).

Uses: Generally regarded as a training shoe, although a sizeable number use it both for racing and training.

Sole: Ridged green rubber; softer heel wedge; rubber toe cap.

Upper: Kangaroo leather, white with green trim; ankle and achilles tendon padding.

Special Features: reinforced toe; high-backed achilles tendon guard; extra-solid heel counter.

Weight: 11 ounces for a single shoe, size 8.

Suggested Price: \$17.95.

Athletes' Positive Comments: Long-wearing. . . versatile.

Athletes' Negative Comments: "They are too cumbersome for speed work and don't have enough shock-absorbing sole for long road runs". . . Inflexible sole.

—————**Marathon**—————

Style: Adidas Marathon (also known as the Marathon Spezial; Model No. 710).

Uses: Designed for road racing, not for high-mileage training.

Sole: Thin, rather smooth outer sole with softer one beneath; thickness 10 millimeters at heel, 5 mm. at ball of foot; track shoe last.

Upper: Kangaroo-leather upper, white with black stripes; pull-tab on heel; padded ankle. (Also a limited number made with blue velour uppers.)

Special Features: The lightest-weight Adidas road running shoe.

Weight: 8½ ounces for a single shoe, size 8.

Suggested Price: \$19.95.

Athletes' Positive Comments: Conforms to the natural shape of the foot. . . "Makes you want to run fast."

Athletes' Negative Comments: Smooth bottom slips on sand, cinders, etc. . . Too thin for races as long as a marathon on the roads.

—————**Mexicana**—————



Style: Adidas Mexicana (Model No. 322).

Uses: Primarily a training shoe, with training users outnumbering those who race in them by nearly 3-1.

Sole: Ridged microcell rubber; all-around rim of rubber foxing.

Upper: Velour leather, gold with black trim; padded ankle and achilles tendon.

Special Features: High-backed achilles tendon protector; extra-solid heel counter.

Weight: 10 ounces for a single shoe, size 8.

Suggested Price: \$19.95.

Athletes' Comments: See the comments for the Adidas Gazelle; the Mexicana is nearly identical in every respect except color, and the same comments—pro and con—apply here.

—Olympia—

Style: Adidas Olympia (formerly known as Olympiade; Model No. 301).

Uses: Designed as a hard-wearing training shoe, although several dozen runners in our sample race in it.

Sole: Ridged gum-rubber; all-around rim of rubber foxing.

Upper: Oxhide leather, white with black trim; padded ankle and achilles tendon areas.

Special Features: High-backed achilles tendon protector; extra-solid heel counter.

Weight: 12¼ ounces for a single shoe, size 8.

Suggested Price: \$18.95.

Athletes' Positive Comments: "Excellent support and cushioning. . . Comfortable foam-rubber rim along top. . . Good arch support. . . "They seem to be molded for my foot, and my feet sink into them."

Athletes' Negative Comments: "Shoe rotted from running without socks". . . Too high on the heel (pounds achilles tendon). . . hot. . . sole inflexible.

—Rom—

Style: Adidas Rom (also known as Rome; Model No. 303).

Uses: An all-purpose training and racing shoe, with slightly more runners using it in the former capacity.

Sole: Deep-ripple rubber; rubber toe cap.

Upper: Oxhide leather, white with blue trim; padded ankle and achilles tendon areas.

Special Features: High-backed achilles tendon protector; extra-solid heel counter.

Weight: 11 ounces for a single shoe, size 8.

Suggested Price: \$14.95.

Athletes' Positive Comments: Good support. . . Rugged. . . Snug fit.

Athletes' Negative Comments: Heavy and cumbersome. . . Inadequate shock absorption. . . "Inflexible; don't feel like natural running."

E.B. SPORT INTERNATIONAL

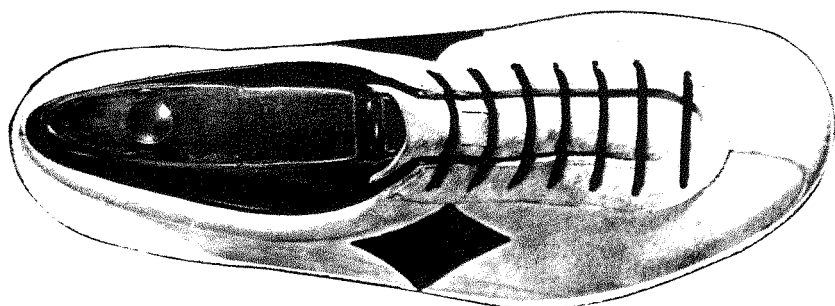
Manufactured: West Germany

Chief US Distributor: Abbott Athletics, Inc., P.O. Box 1264, Abilene, Tex. 79604.

Arthur Lydiard caused quite a flurry of excitement when he came out in an interview and said he'd designed the "dream shoe" which he figured would put an end to shoe-related foot miseries. Lydiard is not only a coach of world record holders and Olympic champions but also once was a professional shoemaker. He outlined some design features in his new shoe that sounded intriguing.

Following a rush of publicity, shoe buyers bought heavily when the new E.B. Sport International "Lydiard" came on the market. Nearly 10% of our sample owns them. Reactions are mixed. They agree that it isn't as good as Lydiard claimed; no shoe could be. Beyond that, comments range from high praise to extreme disappointment.

Lydiard Road Runner



Style: E.B. Sport International Arthur L. Lydiard Road Runner (Model No. 1150).

Uses: Primarily a training shoe (those who wear it for training outnumber racers nearly 6-1).

Sole: Ridged gum-rubber outer sole about one-fourth inch thick, covering harder rubber; all-around rim of rubber foxing.

Upper: Suede-leather, beige with red trim; ankle and achilles tendon padding.

Special Features: High rubber outer heel support and leather inner heel cup; recessed seam down the center of the shoe's sole; made on a last conforming to the natural shape of the foot.

Weight: 11¼ ounces for a single shoe, size 8.

Suggested Price: \$19.95.

Positive Athletes' Comments: Excellent inside support and balance. . . Good cushioning. . . Plenty of toe room. . . Relief from recurrent foot and leg problems.

Negative Athletes' Comments: Soles and heels wear too quickly. . . Cause blisters behind ball of foot and on the heel (from the achilles pad). . . Too bulky. . . Difficult to break in.

KARHU

Manufactured: Finland

Chief US Distributor: Karhu of North America, 1908 Grande Ave., Cedar Rapids, Iowa 52403.

As everyone with a trace of appreciation for distance history knows, the Finns have a running tradition that goes back to the early years of the century. Before World War II, they were simply unbeatable. The small country still produces a leader at the Boston marathon year after year.

You'd expect quality shoes from a distance-oriented, industrious people like the Finns. The Karhu is such a shoe—rugged, well-made and relatively low in cost. Several runners have even offered the opinion that Karhu is the “sleeping giant” of the running shoe field. The main problem at the moment is availability. They're hard to get, since outlets for them are extremely limited.

Because of their limited exposure to the US running audience, we classify Karhus as new shoes and will discuss them in that chapter.

NEW BALANCE

Manufacturer and Chief US Distributor: New Balance Athletic Shoe Company, 176 Belmont St., Watertown, Mass. 02172.

For years, New Balance has been the leading US shoe manufacturer. In fact, while this New England brand holds down a relatively large proportion of our sample market, no other US-made type except the new Road King even qualifies for inclusion here.

New Balance has several unique features going for it. Primarily, it's one of the rare running shoes available in variable widths. And the company advertises a resoling service which can greatly extend the life of the shoes. As can be seen by the photo, the ripple-soled shoes radically depart from the appearance of other brands. Some runners consider this a positive feature, some negative.

While the Jogster (formerly known as Trackster II) is the leading New Balance seller among our sample, and the only one above our 1% limit, a second model deserves mention. That's the Trackster—a lighter (9 oz.) version of the Jogster. A rather high number of runners listed only “New Balance” as their preference. If models had been specified, the \$15.25 Trackster almost surely would have made a better showing in the survey.

Jogster

Style: New Balance Jogster (formerly called the Trackster II).

Uses: Designed primarily as a heavy-duty training shoe, but an almost equal number of people both train and race in it.

Sole: Hard black rubber with deep ripples; soft-rubber heel wedge extending to ball of foot; all-around rim of rubber foxing.

Upper: White leather with red trim.

Special Features: No seams on toes; available in widths; easily resoled.

Weight: 11 ounces for a single, size-8 shoe.

Suggested Price: \$18.95.

Athletes' Positive Comments: Flexibility gives feeling of "next-to-nothingness" . . . "Ground-hugging feel" . . . "You can get them to fit your feet" . . . Service through the mail is excellent.

Athletes' Negative Comments: Mud and pebbles collect in ripple soles. . . Soles wear out too fast. . . "Every grain of sand feels like an egg" . . . Insufficient support.



PUMA

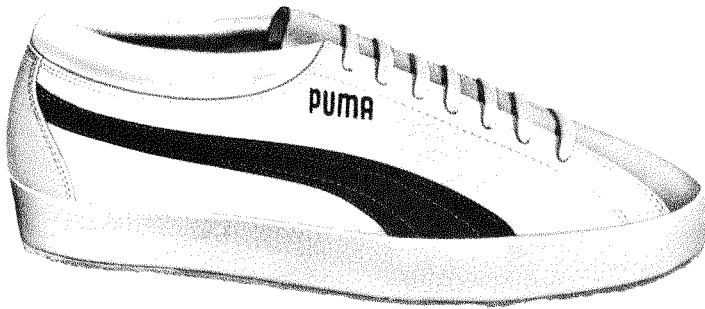
Manufactured: West Germany

Chief US Distributors: Sports Beconta, 50 Executive Blvd., Elmsford, N.Y. 10523; Sports Beconta, 91 Park Lane, Brisbane, Calif. 94005.

In the track shoe market, spirited and often brutal competition goes on between Adidas and Puma models. The companies have excellent basic products, advertise heavily and reap the benefits of that competition.

Strangely, Puma seems to ignore the road runner market. The flats, though widely available in sporting goods and department stores, aren't pushed the way the spikes are. Comparatively few runners wear them, and fewer yet are aware what the specific models are.

Though the company has demonstrated it is perfectly capable of producing high-quality running shoes, not one of its models even comes up to the 1% ownership level in our sample of over 800 athletes.



PUMA OSAKA

These are Puma's best sellers among our sample:

JOGGER (Model No. 115; suggested price \$12.80)—Ridged sole; white cowhide leather upper with black trim.

MARATHON (Model No. 249; suggested price \$26.00)—Built on track shoe last; one runner commented that this shoe is both "light and durable"; 7 ounces for a single, size 8 shoe.

MEDAL (Model No. 214; suggested price \$18.20)—Ripple sole, built-up heel; white horsehide leather upper with blue trim; 8 ounces for a single, size 8 shoe.

OSAKA (Model No. 167; suggested price \$22.00)—Ridged sole with all-around rubber foxing; white calf leather with black trim, reinforced leather heel, ankle and achilles tendon padding; 12 ounces for a single, size 8 shoe.

REEBOK

Manufactured: Great Britain

Chief US Distributor: Magnolia Sports, 10634 Magnolia Blvd., North Hollywood, Calif. 91601.

"The Ron Hill shoes." That isn't their official name, and Ron Hill doesn't have a financial stake in the British company that makes them. But Hill's fame has become so intimately tied in with the Reebok name that the two are inseparable. Hill is a tinkerer, an experimenter with equipment, and he lives near the Reebok factory. Ron has passed his findings on to company officials, and his ideas are reflected strongly in the shoes.

A number of Reebok models only became available in the United States in late 1970 and early 1971, but already when this survey was taken the company had over 1% of the sample market. We'll take a closer look at some of the Reebok models in the "new shoes" chapter.

ROAD KING

Manufacturer and Chief US Distributor: Friberg Enterprises, 9433 Alto Dr., La Mesa, Calif. 92041.

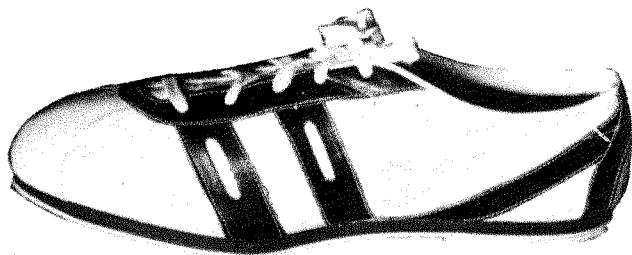
This could be it. The high-quality, rather low-priced, American-made road running flat. A New Zealander designed these shoes which went into general production in the US in 1970. They caught on quickly, and a few months after they went on sale, over 2% of our sample already wore them.

About the time we mailed our questionnaire, the Road King underwent some design changes in the direction of more cushioning and more durable construction. A criticism of the original shoe was that the sole pulled loose from the upper. Attempts have been made to correct this.

The Friberg company also has come out with a racing flat called the Road Racer, which will be discussed in the "new shoes" chapter.

A big plus for the Road Kings is that they come with easily-replacable soles, available from the company, which the user can glue on his own shoes.

— Road King —



Style: Road King (design improved in early 1971).

Uses: Primarily a training shoe, but sometimes used for racing as well.

Sole: Gum-rubber outer sole with small built-up heel; thick sponge mid-sole; felt pad under heel; suede-leather insole.

Upper: White leather with black trim; padded ankle; reinforced toe and heel; nylon-padded tongue.

Special Features: Roomy toe area; felt pad under heel; replacable soles available from company.

Weight: 10 ounces for a single, size 8 shoe.

Suggested Price: \$15.90.

Athletes' Positive Comments: Roomy. . . Superior cushioning qualities . . . Easiest on the toes.

Athletes' Negative Comments: Tendency to make you relax and sit back on your heels, giving stone bruises. . . Laces don't go high enough, causing poor balance. . . Gaps at top let pebbles in.

TIGER

Manufactured: Japan

Chief US Distributors: Blue Ribbon Sports, 6900 S.W. Haines Road, Plaza 1, Tigard, Ore. 97223; BRS, 75 Middlesex Ave., Natick, Mass. 90230; BRS, 9073 Washington Blvd., Culver City, Calif. 90230; BRS, 5568 S.W. Eighth, Coral Gables, Fla. 33134.

The Japanese-born Tigers couldn't have come to the United States at a more opportune moment. The first full line of shoes specifically designed for road running arrived in the mid-'60s—just when the road running revolution was gaining momentum.

Japanese often are accused of being blatant copiers. They even used conspicuous three-striping on their shoes for a time. But in many ways the Tiger people have been innovators who've been copied by other companies. A prime example is the Tiger-pioneered nylon upper, which is vastly popular in the running field.

The combination of a good, light shoe, low cost and heavy advertising in the publications that reach committed runners has made Tigers far and away the most popular distance running shoes. Nearly 60% of our sample race in them, and about 70% use them for their daily runs. Seven individual models rate individual attention.

Bangkok

Style: Tiger Bangkok (formerly known as Road Runner—reverse leather; Model No. TG-22R).

Uses: All-purpose racing and training shoe, worn by nearly equal numbers for both purposes.

Sole: White ridged rubber of variable thicknesses; soft heel wedge and pad under ball of foot.

Upper: Reversed (suede) leather, blue or maroon with white trim; reinforced leather heel.

Special Feature: Sole thinner at arch for added flexibility.

Weight: 7.36 ounces for a single shoe, size 8.

Suggested Price: \$13.50 (\$11.50 for team members).

Athletes' Positive Comments: Light. . . Durable. . . "Able to feel the earth through the soles."

Athletes' Negative Comments: Heels run over easily. . . No arch support. . . "That crazy dye turns my feet blue and ruins my white socks."

Boston

Style: Tiger Boston (Model No. TG-25).

Uses: All-purpose, with nearly equal numbers racing and training in this shoe.

Sole: Lightly-ridged outer sole, softer mid-sole; heel wedge.

Upper: Nylon, blue with white trim (also available in white leather

with blue and red trim); reinforced leather heel and toe.

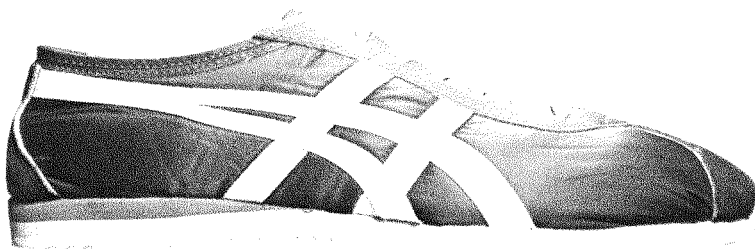
Special Feature: Nylon model is washable, quick-drying.

Weight: 8.18 ounces for a single shoe, size 8.

Suggested Price: \$13.95 (\$11.95 for team members).

Athletes' Positive Comments: No break-in period. . . Fine all-weather shoe. . . Light, yet durable. . . Uppers never get stiff.

Athletes' Negative Comments: "Too flimsy; I have twisted my ankle several times" . . . "Wear out from the inside" . . . Nylon doesn't "give" . . . "Too bulky for track work; too light for distance."



—Cortez—

Style: Tiger Cortez (formerly known as the Aztec; Model No. TG-24).

Uses: Easily the most popular training shoe on the market; rarely used for racing, with trainers outnumbering racers nearly 10-1.

Sole: Thick, multi-layer rubber with ridges on outer layer; soft heel wedge; rubber toe cap.

Upper: Leather, white with blue and red trim; reinforced leather heel; leather pull-tab on heel.

Special Features: One of the most solidly-constructed soles on the market.

Weight: 10.38 ounces for a single shoe, size 8.

Suggested Price: \$14.95 (\$12.95 for team members).



Athletes' Positive Comments: High heel. . . Effective for absorbing shock on hard pavement. . . Very good on rough gravel. . . "Feels like running on pillows". . . "The driest shoe I've ever used; keeps water out."

Athletes' Negative Comments: "Could be wider in the striking surface of heel for more support; heels tend to roll". . . "Too mushy". . . "Feels like a logging boot". . . Uppers too stiff. . . Needs constant heel repair.

Cub

Style: Tiger Cub (Model No. TG-5).

Uses: Primarily a racing shoe, with nearly every owner using it exclusively for that purpose.

Sole: Like the Tiger Marathon; ridged white rubber, thickest at heel and thinnest at arch; sponge midsole.

Upper: White canvas with blue and red trim; leather-reinforced heel and toe.

Special Features: Washable and quick-drying.

Weight: 5.78 ounces for a single shoe, size 8.

Suggested Price: \$8.50 (\$6.95 for team members).

Athletes' Positive Comments: All but identical to the Marathon, and considerably cheaper. . . Very light.

Athletes' Negative Comments: Extremely difficult to obtain. . . Tend to rot and tear quicker than nylon and leather.

Marathon



Style: Tiger Marathon (Model No. TG-4N).

Uses: Designed for racing and lightness, not high-mileage durability; a few runners train in it, but they're outnumbered by racers, 5-1.

Sole: Like the Tiger Cub—ridged white rubber, thickest at heel and thinnest at arch; sponge midsole.

Upper: Nylon, blue or maroon with white trim (also available in all-white); some come with leather-reinforced toe and heel.

Special Features: Washable; quick-drying.

Weight: 6.24 ounces for a single shoe, size 8.

Suggested Price: \$11.95 (\$10.50 for team members).

Athletes' Positive Comments: Ideal for wet weather. . . Good "breathing" . . . Need no breaking in. . . Glove-like fit. . . "Much more like running barefoot in that one gets a much better feel of the surface than with stiffer shoes."

Athletes' Negative Comments: Need built-up heel. . . No real cushioning or support on bottom; too thin. . . Inner sole not moisture absorbing; slip when wet. . . Rip where soles meet nylon.

—Road Runner—

Style: Tiger Road Runner (Model No. TG-22).

Uses: All-purpose, with roughly equal numbers using the shoe for racing as well as training.

Sole: Identical to the Tiger Bangkok—white ridged rubber of variable thicknesses; soft heel wedge and pad under ball of foot.

Upper: Leather, white with blue and red trim; leather-reinforced heel.

Special Features: Sole narrowed at arch for added flexibility.

Weight: 8.15 ounces for single shoe, size 8.

Suggested Price: \$12.95 (\$10.95 for team members).

Athletes' Positive Comments: Good price. . . Good flexibility in soles.

Athletes' Negative Comments: No substantial counter in heel. . . Leather gets stiff.

—Tahoe—

Style: Tiger Tahoe (Model No. TG-23R).

Uses: Almost exclusively a training shoe, at least among those runners we surveyed.

Sole: Ridged rubber; all-around rim of rubber foxing.

Upper: Reversed (suede) leather, red-orange with white trim; padded ankle; leather-reinforced heel; leather pull-tab at heel.

Special Features: Extra lateral support from rubber foxing.

Weight: 8.34 ounces for single shoe, size 8.

Suggested Price: \$14.95 (\$12.95 for team members).

Athletes' Positive Comments: "Finally, a Tiger that looks good for casual wear!" . . . Raised heel.

Athletes' Negative Comments: Not enough padding. . . "Didn't hold up well."

COMPARISON OF MAJOR MODELS

Brand & Style (Model No.)	Uses	Price	Weight	Bottom	Top
Adidas Antelope (308)	All-Purpose	\$13.95	11 oz.	Deep-ripple sole	White leather
Adidas Gazelle (321)	Training	\$19.95	10 oz.	Ridged, foxed	Blue suede leather
Adidas Italia (302)	Training	\$17.95	11 oz.	Ridged sole	White leather
Adidas Marathon (710)	Racing	\$19.95	8½ oz.	Smooth sole	White leather
Adidas Mexicana (322)	Training	\$19.95	10 oz.	Ridged, foxed	Gold suede leather
Adidas Olympia (301)	Training	\$18.95	12¼ oz.	Ridged, foxed	White leather
Adidas Rom (303)	All-Purpose	\$14.95	11 oz.	Deep-ripple sole	White leather
E.B. Road Runner (1150)	Training	\$19.95	11¼ oz.	Ridged, foxed	Beige suede leather
New Balance Jogster	All-Purpose	\$18.95	11 oz.	Deep-ripple sole	White leather
Road King	Training	\$15.90	10 oz.	Built-up heel	White leather
Tiger Bangkok (22R)	All-Purpose	\$13.50	7.36 oz.	Built-up heel	Blue/Maroon suede
Tiger Boston (25)	All-Purpose	\$13.95	8.18 oz.	Ridged sole	Blue nylon
Tiger Cortez (24)	Training	\$14.95	10.38 oz.	Ridged sole	White leather
Tiger Cub (5)	Racing	\$8.50	5.78 oz.	Built-up heel	White canvas
Tiger Marathon (4N)	Racing	\$11.95	6.24 oz.	Built-up heel	Blue/Maroon nylon
Tiger Road Runner (22)	All-Purpose	\$12.95	8.15 oz.	Built-up heel	White leather
Tiger Tahoe (23R)	Training	\$14.95	8.34 oz.	Ridged, boxed	Red suede leather

NOTE: These are the 17 most popular models of running flats; weights are for a single size-8 shoe.

NEW MODELS OF FLATS

There's nothing static about the running shoe market. It has revolutionized itself in the last few years, and there shouldn't be any reason for it to stop on us now.

We're the first generation of runners to hit the roads en masse. One effect of the boom in the sport has been a boom in shoe production. Most of the models covered in the last chapter haven't been with us more than a few years, and new ones are coming on the market all the time. We can hope, at least, that the companies are attempting to cater to our needs and desires, and that they are learning from our experiences.

A couple of dozen new shoe styles have become available recently or will be available shortly. Many of them show promise.

ADIDAS

SPECIAL (Model No. SL 72)—They still aren't available in any quantity in the United States (or weren't when this booklet was published), but photo glimpses and descriptions alone are enough to show that they depart radically from Adidas tradition. Most obvious is the nylon upper. The Special appears to have a solid, heavy-duty sole that wraps up around the toe somewhat. The back of the heel is tapered, and there's a thick wedge beneath the outer sole. Another feature is the raised shoestring eyelets. Reports are that this will be one of the lower-priced Adidas models.

E.B. SPORT INTERNATIONAL

MARATHON (Model No. 1916)—This shoe appears to have nearly all the good points Arthur Lydiard claims for the Road Runner, without the bad points. There's the same inner construction, cupped heel and reinforced outside heel. The Marathon has a white-rubber, ridged sole and thin suede leather uppers with ventilation holes. There are no seams over the toes. A thick heel wedge provides good cushioning. This model weighs about seven ounces for a single size 8 shoe. Priced at about \$20.

HUMMEL

Manufactured: West Germany

Chief U.S. Distributor: Magnolia Sports, 10634 Magnolia Blvd., North Hollywood, Calif. 91601.

It must take a lot of nerve for a West German company of limited reputation to attempt to take on the giants—Adidas and Puma. You have to have considerable faith in your product. Hummel is meeting the Big Two on their own ground by coming out with a full line of running shoes which in 1971 were just getting established in the United States. We've arbitrarily picked out the two models that look most likely to succeed with the running crowd.

DIAMANT (Model No. 176)—It comes in white leather, too, but the reversed (suede) style looks best. It comes in either red, green or blue with white trim. The Diamant, primarily a training shoe (it weighs 12 ounces for a single size 8), features solid inner construction and a smooth, soft plastic-like lining on the inside surrounding the heel area. The company offers extra soles for easy resoling. Suggested price \$20.95.

TRABANT (Model No. 120)—Similar to the Diamant but considerably lighter—9½ ounces for a single size 8. Suggested price \$17.95.

KARHU

JOGGER (Model No. 2280)—The most striking thing about this shoe is the variety of colors. The buyer gets his choice of beige, rust, light orange, forest green, royal blue and cocoa brown. But these shoes are more than just colorful. Designed for training, they are solidly constructed, well cushioned at vital points, and have a soft inner lining. One user graphically described them as “big, comfortable boats.” 10½ ounces for a single shoe, size 8.

MILERIFIC (Model No. 2231)—The shoe with the big blue M on the sides is used primarily for racing by those in our sample who own them. It features a flexible sole, raised heel, reinforced heel area on the upper, and padding around the ankle. Like its brother the Jogger, the Milerific sells for under \$15. 7½ ounces for a single shoe, size 8.

PUMA

NYLON—The company was said, in mid-1971, to be about ready to put a nylon-upper distance running shoe on the market. No other details were available when this booklet was published.

VELCRO (Model No. 174)—To our knowledge, this is the only road running flat that comes with velcro fasteners instead of shoestrings. A shoe dealer called this model, with yellow suede leather uppers and white trim, “the wildest thing I’ve ever seen.” But runners often like wild things. The shoe has all-around rubber foxing, and is padded at the ankle and achilles tendon areas. Suggested retail price is \$22.50.

REEBOK

GAZELLE (also known as Dura-Ripple Gazelle; Model No. 440B)—Featured on this British shoe is the deep-ripple sole. It has blue suede uppers, blue with white trim, and although designed as a training shoe it is light enough (9½ ounces for a single size 8) to race in. Suggested price \$15.95.

MARATHON (Model No. R430)—It’s all but unknown in the United States but has several good qualities. With white kangaroo uppers and blue trim, this racing shoe weighs in at 7½ ounces (one shoe, size 8). It’s intended to sell for \$16.95.

NYLON—Another company is reportedly joining the trend.

WORLD-10—This is the “Ron Hill shoe.” The British marathoner designed it, basically slapping a small heel and a strip of rubber onto a track shoe. It’s the lightest thing going (5 ounces for a single size 8), and it feels altogether different than anything else in the road shoe line. It sells for about \$20.

ROAD KING

ROAD RACER (Model 1200)—It has many of the same features as the Road King, but is thinner at the sole and lighter. Its purpose is exactly as the name implies, and it comes with the white leather uppers/black trim as its close relative the Road King.

TIGER

VICKKA (Model No. TG-1)—Tiger has come out recently with a rugged training shoe that rivals the popular Cortez in everything except price. The Vickka appears to offer good overall support, from the foxed sole to the high-backed heel to the padded ankle. It has a gum-rubber sole, and the uppers are white calf leather with black trim, the entire product weighing about 11 ounces for a size 8 shoe. It sells for \$18.95 (\$15.95 for team members).

SPIKES FOR DISTANCES

If our sample is any indication of this booklet's potential reading audience, spiked shoes are of strictly secondary importance in their lives—if any importance. Only about one in five of the runners surveyed even owns a pair. Even those who have them use them for only a small percentage of their running.

But still, spikes are important. That small percentage of use is a most important piece of running—racing and the speed work that sharpens them for it. And, besides that, spikes represent a considerable investment of money for the limited wear they give. Generally speaking, they cost more than road flats and don't last anywhere near as long in mileage terms. They are built for lightness, flexibility and speed. The purpose, construction and feel are entirely different from flats.

Following are brief descriptions of the leading brands and models:

ADIDAS

AVANTI (Model No. 113060)—four spikes, rubber sole from ball-to-heel with heel padding; elk leather uppers, blue with white trim; an all-purpose, low-priced model.

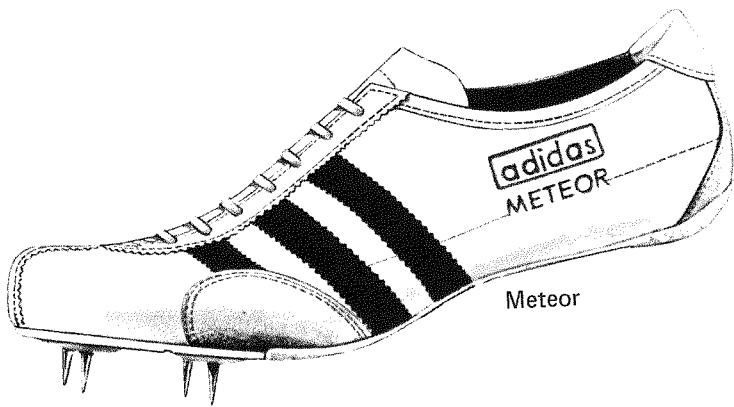
COMET (Model No. 505)—four spikes, sponge-padded heel; white split-leather uppers with blue trim; all-purpose, lowest-priced Adidas spiked shoe.

INTERVAL (Model No. 506)—four spikes, solid rubber heel similar to one on a road shoe, reinforced little-toe area; white kangaroo uppers with green trim; designed for track training.



METEOR (Model No. 503)—four spikes, rubber sole from ball to heel, padded heel; white kangaroo uppers with black trim, reinforced little toe area; primarily a racing shoe.

9.9 (Model No. 502)—four spikes, warp-around velour (leather) padding from ball to heel, padded heel; white kangaroo uppers with blue trim, reinforced little toe area; made for racing.



TITAN (Model No. 551)—six spikes, overall rubber sole, thick ball-to-heel padding (wrap-around); blue or red velour leather upper with white trim; designed for running on all-weather tracks.

TOKYO (Model No. 501)—four spikes, ball-to-heel rubber padding (wrap around); blue velour uppers with white trim; primarily a racing shoe, and by far the most popular .

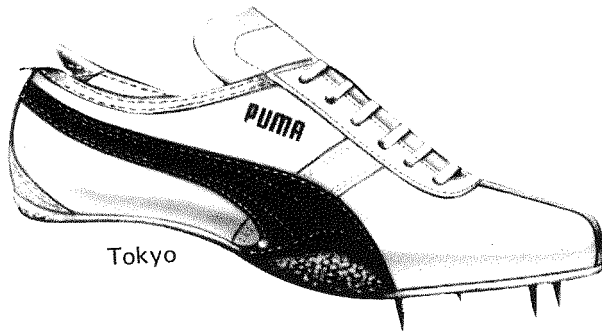


PUMA

BRUSH SPIKES (Model No. 296)—70 permanent pin-spikes, rubber ball-to-heel sole, padded heel, reinforced little toe area; red suede leather with white trim, velcro fasteners, padded achilles tendon area; designed for racing on all-weather tracks. (Declared illegal under international rules.)

COLLEGIATE (Model No. 225)—four spikes, padded heel, reinforced little toe area; white calf leather uppers with blue trim; used for racing and training.

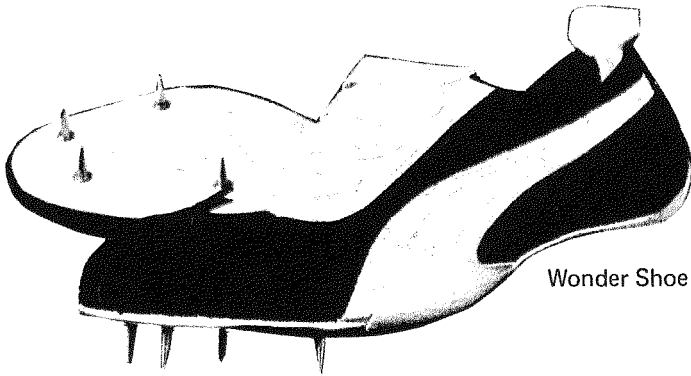
MEXICO (Model No. 295)—four spikes, padded heel, reinforced little toe area; suede leather uppers, blue, red, gold orange, purple, green or maroon with white trim; primarily a racing shoe.



Tokyo

TOKYO (Model No. 275)—four spikes, padded heel, reinforced little toe area, padded heel; white kangaroo uppers with black trim, extra reinforcing strip across instep; primarily a racing shoe.

WONDER SHOE (Model No. 292)—identical to Brush Spikes (No. 296) but with four spikes; also has velcro fasteners.



Wonder Shoe

TIGER

OLYMPIA XIX—four spikes, rubber ball-to-heel sole (wrap around), padded heel; nylon upper, blue with white trim; all-purpose shoe (also available in all-white uppers).

SHOES FOR THE WALKS

BY JACK MORTLAND

(Jack Mortland, former Olympic race walker, is editor of the Ohio Race Walker—which, despite the name, offers worldwide coverage.)

Perhaps the best article ever written on race walking shoes appeared in an early-1960s issue of the long-dead publication called *Race Walker*. It's so dated now that nothing would be accomplished by reprinting it here. But in it author Johnny Walker (the pseudonym of editor Chris McCarthy) was particularly high on a British shoe called the Foster. I believe it's a forerunner—or forewalker—of the Reebok.

I'm not sure if the Foster shoes he mentioned are still available or not. They were real clodhoppers. Actually, there were few people in the United States that wore them, but in those days the British swore by them or similar shoes. The British all wore shoes with an outer heel and with a good deal of weight, feeling both were necessary to insure proper contact. As stated, these Fosters were real monsters. Jack Blackburn had a pair of size 13s, and I once donned them, using my Adidas size 7½s as socks. I couldn't generate much speed with this setup, but I sure wasn't going to lose contact.

The point is, walkers have special needs, and the Fosters were one of the few shoes at that time which filled them. Few new specialist shoes have come along since, and we're mostly stuck with running models.

The Adidas is presently the most popular shoe among walkers in this country and probably throughout the world. They are seen quite frequently on East Germans and Russians these days (political considerations being put aside), and the Englishmen also appear to be going in this direction. I have always preferred the Italia, primarily because the heel is squared off, which I find preferable from both the comfort and style standpoints. However, the Model 709 (Walking Special) seems to be most popular. (I'm not really up on the Adidas styles, as I managed to get several free pairs back in 1964-65, which I just recently exhausted, and I have now gone to Tigers because they are cheaper. Actually, I have yet to see if they are really cheaper since this depends on how many miles I get compared to Adidas.)

Most walkers not using some Adidas style these days are seen in Tigers. There are several models of their flats that seem quite adequate for walking, and I'm not sure what model is preferred.

Hush Puppies are seen from time to time, with the leading advocate of this shoe being Ron Kulik, a member of the 1970 US team in the US-Canada meet. I tried these once myself in a workout and felt sort of out of control. But I think this is the thing with walking shoes. You adjust your style to the shoe you are used to, and a different construction—particularly in the heel—can really create problems until you adjust. I imagine it can even create problems to the extent of pulling you out of contact. So it is even more advisable than in running to break in a new pair of shoes before taking them into a race. In my own experience, just going to a new shoe of the same style as

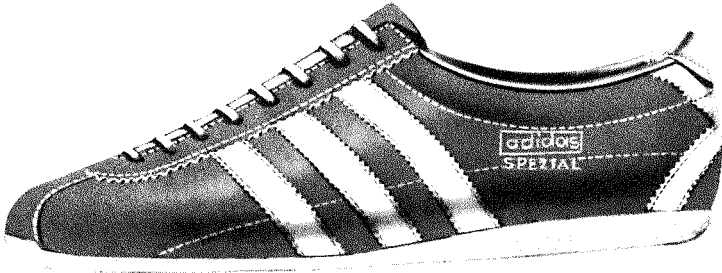
an old one has a definite effect on the way I feel while walking, primarily because I have a heel under me again.

The wear on a walking shoe depends a great deal on the style of the walker. Ron Laird gets a twisting action of the foot which tends to tear up soles. With me, soles are good for something like 800-1000 miles, and with patching thereafter the shoe will last up to 1500. This depends somewhat on the surfaces you are training and competing on, as well as style. I have settled for a plain old bicycle patching kit instead of using more exotic methods of repair. A bicycle patch will hold up for 50-100 miles.

To sum up, I'd say use the same considerations in choosing walking shoes that you do running shoes, giving particular attention to heels.



In the survey, only two models of specialist walking shoes were mentioned. Several walkers wore the Adidas Walking Special that Jack Mortland named; one wore the E.B. Sport International Race Walker.



ADIDAS WALKING SPECIAL (Model No. 709)—Elevated heel, rounded at back; sole rounded in front as well, with rubber extending up onto the toe; blue velour leather upper with white trim; padded ankle; pull-tab on heel.

E. B. SPORT INTERNATIONAL RACE WALKER (Model No. 1918)—Nearly identical to the E.B. Marathon; heel rounded at back; thick heel wedge; beige reversed-leather upper with red trim; ventilation holes; reinforced heel with pull-tab.

SHOE CARE AND REPAIR

Shoes aren't like the feet they cover. Shoes wear out. The more you run, the faster they wear, and the faster they wear the more problems you're going to encounter. The most obvious problem is financial. When they cost up to \$20 a pair, most of us can't afford to invest in new ones too regularly. Less obvious but of more urgent interest to the runner is the fact that deteriorating shoes can lead to all sorts of injuries—from minor blisters to serious complications requiring complete layoffs.

But don't despair. Repairing your running shoes can be almost as easy as wearing them out. It's particularly easy if you practice early and regular preventive action to retard wear rather than letting shoes become unwearable before trying to fix them.

The majority of athletes answering the questionnaire practice some sort of repair or modification technique to give their shoes extra life and comfort. Their methods run from quick patching jobs to almost complete remaking and customizing. We'll get to some of the specifics in a bit. The repair technique you adopt will depend on how much work and expense you want to invest in the job. Some feel that "just the right shoe" is worth saving, regardless of cost. One runner said, "Five dollars for a resole job on \$12 shoes is not worth the cost." But another commented, "I usually spend \$25 to \$30 on repairs on shoes before I discard them."

Athletes report only moderate success with taking their shoes to professional shoe repairmen. While many are satisfied with the results, a sizeable number say that "I can't find one who understands what I want," or "It's too expensive for the results I get."

However, there are a number of shoemen around the country who specialize in repairing running shoes. Satisfied customers plugged the work of Steve Jackson in Takoma Park, Md., the Muzak Company in Redondo Beach, Calif., and Campus Shoe Repair in Eugene, Ore.

In addition, a number of shoe companies are making it easier for the runner to get repairs. The New Balance people have long offered a resoling service. Road King now sells shoe repair kits. And the Hummel Company manufactures replacable soles.

Most athletes, though, either by necessity or choice do their own modifying and repairing. Again, the method you use is going to be determined by the effort and expense you're willing to put into it. Here are some techniques, drawn from the experiences of our sample, which might help you.

BOTTOMS—Since they're in intimate contact with the earth, the soles and heels wear fastest and cause athletes the most concern. They're normally gone long before the uppers have given out.

Chris McCarthy, a race walker, wrote a classic article on sole and heel repair for the 1967 *Distance Running News Special Shoe Issue*. His is a standard approach to shoe repair, and he explains it like this:

"To be good, shoes must be light; but to be light they must be flimsy.

And as flimsy suggests, they simply do not last long. However I have found an inexpensive way to greatly extend the life of shoes.

“1. The first thing you need—and most important—is a good professional grade of rubber cement. I have found three brands on the market that do the trick—Barge’s Cement, Goodyear’s Cement and Cat’s Paw Cement. Be sure to buy thinner with the cement.

“2. Next, rubber stock should be purchased or found for soles and heels. An old inner tube from a truck or an auto will do. Occasionally you might need crepe rubber. Crepe comes in sheets coded by number. Number 12 is about right for running and walking shoes.

“3. The tools: some sort of abrasive. The best, by far, is a sandpaper disc on an electric drill. Lacking this, you can get by with some medium grade sandpaper.

“4. Having all your materials, go by the directions written on the can of cement.”

Using the basic materials McCarthy recommends—or any of the other rubber products and adhesives that are widely available—runners are able to apply built-up heels, replace worn ones, repair other high-wear points on the soles and toes, and apply preventive patching on these vulnerable areas.

Patching is a particularly easy and widely-used technique. Many runners simply buy tire-patching kits available under a number of brand names and apply the patches regularly as directed with the kit.

An even simpler approach is the use of a sole or heel coating. One of the best, apparently, is a black paste-like material called “Sole-Saver.” A user commented, “It’s spreadable with a knife, and many hundreds of extra miles can be added to a pair of shoes with this material. It’s easy to apply, and fast.” Some speak highly of a product known as “Devcon”—a liquid rubber, and others have found G.E. Silicone Seal to be successful. Taping generally isn’t.

TOPS—The uppers don’t normally cause as many problems as do either the bottoms or the interiors of the shoes. However, they do demand and get attention. Some of the modifications:

- Taping for added arch or instep support, or simply to cover holes.
- Sewing and patching tears or weak spots. (One athlete recommended sewing with high-strength fishing line.)
- Ventilating the shoes with a leather punch or razor blade.
- Slitting the toe areas for extra room and freedom.
- Cutting away portions of the heel which tend to irritate the achilles tendon area. (A surprising number of people do this.)
- Reconditioning the uppers with oil, vaseline, saddle soap, or a water-proofing substance.
- Stuffing with paper or inserting shoe trees so that shoes hold their shape when drying.

INSIDES—All sorts of contraptions, some standard equipment and some exotic, are thrown into shoes to protect the foot where it makes contact with the shoe.

- Insoles—the ones that come with most shoes are either inadequate, or they wear through quickly. A large percentage of athletes say they tear out the original ones and put in higher-quality insoles. The most popular are the Spenco and various styles made by Dr. Scholl's. One runner says he makes his from wet-suit rubber.

- Arch supports—there's quite a variance of opinion on these. Some say they're essential. Others rip theirs out of their new shoes. By far the best supports are those custom-designed by a podiatrist. Dr. Scholl's arch supports are widely available and rather widely used.

- Heel protection—many athletes insert heel cups (the most popular being the plastic MF Company model) into their shoes. Others use commercial or self-made heel pads of one sort or another—felt, foam rubber, etc. One uses pillow stuffing. Another uses a piece of carpeting. The idea in these is both to cushion the heel and to raise it, on the theory that it lessens achilles tendon damage.

- “Blister-proofing”—careful athletes go through an elaborate ritual of removing potential trouble-spots from their shoes' interiors. They grind down or pad rough spots *before* the blisters form.

OUR INJURY DILEMMA

It's enough to make a grown man cry, reading through the 800-odd questionnaires and seeing the pains runners endure while engaging in this "healthy" sport of ours. If this sample is any indication, very few of us escape without a disabling injury or two along the way. Thankfully, the large majority of the ailments are temporary. If we're typical, we shake off one, forget it, and pick up the same or another later on.

Everyone has blisters and sore muscles. We're not talking about those here. The ground rules for this survey of injuries are: (1) *That it be serious enough to require a complete layoff from running*, and (2) *That it occur as a direct result of running*.

The idea here is to indicate the general prevalence of running-related injuries. No attempt is made to give the specific scientific terminology of the various ailments. They're lumped into "families" of injuries with simple descriptive names. Of the over 800 athletes questioned, these are the percentages suffering the major injuries.

Knee Damage	17.9%	Heel Bone Damage	3.0%	Foot Tendons	0.6%
Achilles Tendons	14.0%	Hip Ailments	2.6%	Lower Back Aches	0.6%
Shin Splints	10.6%	Hamstring Pulls	2.6%	Nerve Damage	0.5%
Arch Injuries	6.9%	Thigh Muscle Pulls	1.3%	Blood Vessels	0.3%
Ankle Injuries	6.4%	Lower Leg Fractures	1.0%	Warts	0.3%
Metatarsal Fractures	4.9%	Instep Injuries	0.9%	Toenail Damage	0.3%
Stone Bruises	4.4%	Foot Infections	0.8%	Stomach Muscles	0.1%
Calf Muscle Pulls	3.6%	Groin Muscle Pulls	0.6%	Bunions	0.1%

Shoes must at least share the blame for a good many of these. Many factors can lead to injuries—accidents, running surface, running speed and effort, neglect of minor problems. But poorly-made, poorly-fitted or improper shoes also have a role. They can increase susceptibility and impede recovery.

You can go right down the list of injury leaders. Every one can be linked with shoe problems. Knee damage can come from severely-worn and unstable heels; achilles tendon injuries from heels that "bite in"; shin splints from inflexible soles; ankle injuries from clumsy shoes; metatarsal fractures and stone bruises from inadequate cushioning, and on and on.

We'll leave it to Dr. Sheehan to give medically-based advice. But any layman can see that we obviously have problems.

THE VULNERABLE FOOT

BY GEORGE SHEEHAN, M.D.

(Dr. Sheehan, a New Jersey physician, is an active long distance runner and writes the "Medical Advice" column for Runner's World.)

I hold it as an elemental rule that whatever a runner's disability is, it probably stems from his feet. There are, of course, exceptions. For instance, when there is acute trauma with pulls and sprains, and in the variety of sciatic pain syndromes. However, after these are eliminated, it is best to assume that any pain from the knee down comes from some difficulty with the feet.

The foot is a marvelous mechanism which has 26 bones, and almost double that number of ligaments and muscles along with a few bursae that can bother the runner. In actual practice, however, the main difficulties originate in one of three arches.

- 1. *Longitudinal inner arch* along the inside of the foot extending from just in front of the heel to the base of the first long toe joint.
- 2. *Lateral longitudinal arch* in the same position on the outside of the foot.
- 3. *Metatarsal arch* across the ball of the foot.

The longitudinal arch is bow-shaped and there is a sheet of tissue (the plantar fascia) that runs across the bottom of the foot starting at the heel spur like the string of the bow.

Part of the long arch is formed by the posterior tibial tendon that comes down the inside of the leg, hooks under the inside of ankle bone and then proceeds across the bottom of the foot to the base of the fifth toe.

When the arch falls, this posterior tibial tendon is stretched. This produces pain which originally starts high on the inside of the calf, but over weeks or days as the arch falls, the pain gravitates down toward the ankle and eventually the pain gets into the arch proper and the plantar fascia is affected. At that point, it is almost impossible to run because of the pain.

At other times, the falling of the arch simply results in a turning in, or pronating, of the foot to a flat-foot position. This is unnatural position for the rest of the leg and causes a shift of the mechanical stress, especially of the fibula and knee. In my book, this is the cause of chondromalacia of the knee and many stress fractures (although stress fractures may also be more related to an unstable foot.)

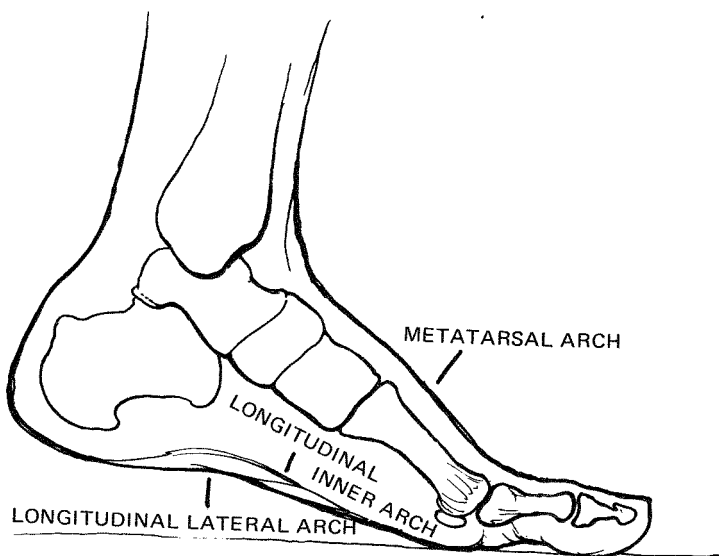
Metatarsal arch problems are usually interpreted as bone bruises on the ball of the foot. Other difficulties associated with incorrect shoes are achilles tendonitis from lack of heel lifts, especially in older runners, calluses from tight-fitting shoes, ingrown toenails from tight-fitting shoes and even loss of toenails from the same reason. The unstable foot can present a host of leg and foot pains, especially on the outside of the calf.

Blisters are a special problem, and I have handled that personally by taping the potentially affected areas with Zona tape (trainers' tape) prior to the event. Use of ladies tennis socks or socks with reinforced bottoms has

also been helpful. I stopped using vaseline when a new pair of shoes I bought came apart. Apparently some shoes are glued together with a material which vaseline dissolves.

CONCLUSIONS:

- 1. Whenever disability occurs and whenever it manifests itself, the shoes should be considered the culprit unless proven otherwise.
- 2. Every runner is unique and may need help at one or all the arches of the foot.
- 3. When symptoms occur, a longitudinal arch support plus some additional heel lift would represent minimum care. These should be used in all shoes.
- 4. Expert care from a podiatrist with the use of an insert suitable for transfer from running shoes to daily shoes may be necessary, especially in severe cases involving chondromalacia and stress fractures.
- 5. It may be best under the circumstances to continue with our naked (no arch) shoes since supports have to be so individualized it would be difficult to agree on a minimum shoe. This allows freedom to put in tailored supports.
- 6. Stretching the achilles tendon and running on the outside of the foot will prevent many problems with the feet.



LAST OF BAREFOOT BOYS

BY JOE HENDERSON

Abebe Bikila, Jim Hogan, Ron Hill and Bruce Tulloh have one thing in common. No, it's not the fact that they've all won international championships of one sort or another. They have, but that isn't the point.

None of them, even if they were eligible, would be allowed to race in US high school meets until they put their shoes on. Dick Drake of *Track & Field News* recently reported in "On Your Marks"—his column of newsy trivia—that "new rules for high school track make it mandatory to wear shoes while participating. International rules have no such requirement."

Bikila (two-time Olympic marathon champion), Hogan (European marathon champ and former world record holder at 30 kilometers), Hill (Commonwealth and European marathon winner, as well as record-man at 10 and 15 miles and 25 kilometers) and Tulloh (European three- and six-mile record setter) all raced barefoot from time to time. Generally, the three Englishmen confined their toe-exposing to track racing, but Bikila padded shoeless through the 1960 Olympic marathon on the cobblestones of Rome's streets.

Apparently, though, what's good enough for internationalists isn't good enough for US high schoolers. They now *must* wear shoes at all times.

When I heard of this new ruling, I reflected fondly on my own long-gone days as a high schooler. In that era, running shoes were poorly constructed, cumbersome and expensive. Being a farm boy at heart—one who went the whole summer wearing shoes only on Sunday mornings—I naturally chose not to wear any shoes when running if I could help it. No one on our cross-country team wore them. We trained on the dirt and grass. Our feet got as tough as the soles of some of the shoes I now pay \$20 for. After getting used to the freedom of barefoot running, we saw no reason to go shod into races. We raced barefoot, too. Won the state championship, as a matter of fact. If my hazy memory serves me right, not one of us experienced so much as a toe blister, which was more than we could say when wearing the primitive shoes of the day.

Those were simpler times. Adidas was an exotic, tongue-twisting word we sometimes read about in an equally exotic magazine from California. Pumas and Tigers were wild animals of the cat family.

High school track is more sophisticated now. Boys casually toss around highly technical terms and concepts. They run as fast as the collegians did 10 years ago. And they're uniformly equipped with the finest shoes available. There hardly seems a need for legislating barefoot racing out of existence. It is already all but extinct. And it's too bad. There's a lot to be said for the feel of the ground beneath the feet. A couple of million years of man's experience at it is a pretty good recommendation. But apparently the fear of feeling broken glass as well has scared modern man away from this simple pleasure.

We stuck a question on the questionnaire—"Do you ever race or train barefoot?"—just to get an idea if there were any of this vanishing species left.



JIM HOGAN



RON HILL

Probably 99.9% answered “No.” Some said “No!!” Some asked “Are you kidding?” Jim Engle, an English teacher, got a bit more literate about his answer. He said, “Very rarely. I have a fear of sharp objects—including tetanus shots.” There was a note of truth in what Dick Cordone said: “If the prices of shoes keep going up, I might be forced to.”

A few do some beach or grass training this way, but it’s extremely rare to find a runner who’ll trust his racing to shoeless feet. They’re growing rarer. After Rome, Bikila normally wore shoes until his tragic auto accident ended his career in 1969. Hogan and Tulloh are retired. Hill is involved in designing running shoes, so naturally he wears his own products.

We’ve become so civilized in the 1970s that the sight of a barefoot runners is considered foolhardy, odd, abnormal. This is particularly true if he’s seen racing on the roads. I always run in shoes. But I can’t help but look

kindly on the few—very few—people I've run across who can go without. Maybe it's nostalgia.

A picture that sticks in my mind is a shot of Dr. Charlie Robbins from Connecticut. He's finishing the Manchester (Conn.) five-mile one Thanksgiving, smile on his face, nothing but two thin strips of tape on his feet. Despite the five miles on the road, he doesn't have the look of a man with sore feet.

Another example is nearer at hand. I see Ray Darwin—briefly; he's much faster—week after week at local road races. He nearly always runs barefoot, nearly always finishes well, and usually with feet that look healthier than those of shoe-wearers. I recall seeing Ray a few weeks ago in a six-mile on an all-weather track. I was a spectator at this one and got to see him all the way. A beautiful sight. Maybe it was just the nature of his style, but he seemed to gently glide over the ground while the shoe-wearers pounded it. Ray ran his best time that day, which reminded me of something Jim Hogan had said a few years earlier:

“My times have shown I can run so much faster barefoot. (During 1966) I ran nearly all my races with spikes on, and all my times were diabolically slow compared to what I can run barefoot. My best barefoot three-mile is 13:19; with spikes it is 13:30. Over six miles, I have run 27:35 barefoot, but only 28:18 with spikes. . . . When I put spikes on, I feel I am tied to the ground.”

Hard as man tries, he'll never come up with a foot covering as light, flexible and durable as that provided by nature. Skin. It's a shame we've all lost faith in it and keep it hidden beneath imperfect man-made products.

SEARCH FOR PERFECTION

Face it. Short of custom designing shoes for each foot of each runner for each of the individual racing and training situations he'll find himself in, there's no perfect shoe. As the shoe dealer/marathoner down the street has wisely pointed out, "All shoes present compromises in comfort, durability, lightness, cost. No shoe can have it all."

But we go on hoping that it can. Nearly everyone who filled out the shoe questionnaire tackled the last question: "If you could design a new type of shoe, what features would you want included?" Their answers ranged from rather standard complaints on the shortcomings of shoes, to far-out suggestions, to some truly inspired ideas.

Generally, opinions vary to the extremes. One man will call for a thicker sole, the next will want a thinner and more flexible one. One will want a wider shoe, another a skinnier one. One calls for a better arch, his friend wants none. Direct opposites in preferences such as these are what keep a dozen or so athletic shoe companies thriving.

The most commonly-listed suggestions were these:

- A replacable heel and repair kit as optional equipment with each pair of shoes sold.
- A complete absence of rough, blister-producing seams inside the shoe.
- Shoes available in a wide variety of widths.
- Water-proof uppers that don't get hard when subjected to repeated soaking and drying.
- Holes for ventilation.
- Velcro fasteners instead of shoestrings.
- More toe room.
- And the old standards: longer wear, less weight, lower cost.

We're not likely to get the sort of shoe one runner requested: "Thick soles with engines." Others have more practical ideas, and some are almost as unique. Let's let them explain:

James McCutchan, Berkeley, Calif.: "Searching for the perfect shoe is similar to the search for the 'Holy Grail.' Each time a new shoe comes along, I eagerly anticipate the wearing of them and hope they solve my problems. I am *always* disappointed."

Dennis Stevenson, Sunnyvale, Calif.: "A durable sole with a soft second sole for comfort. A soft upper either reverse leather or kangaroo, and at least partially lined inside. Should have good arch support and insole and heel counter. All this should still be light, sell for under \$10 and have an unconditional guarantee. No way."

David Bronson, Vienna, Va.: "I'm still looking for the shoes that will make running on streets seem like running barefoot across the bosoms of maidens."

Michael Bander, Milwaukee, Wisc.: "Slip or pocket on side for change. Aluminum (light) springs in bottom. If you use these ideas, do I get the royalties?"

Kenny Moore, Lowell, Ore.: "The features one runner might appreciate would likely tear up another's feet. Just as training schedules must be individually developed to suit an athlete's needs, one must experiment in footwear. No one shoe can possibly satisfy everyone."

Larry Kent, Toledo, Ohio: "Possibly a shoe with interchangeable soles held together by velcro closures—one sole for racing, one for training. Can buy new soles when old ones wear out."

Arne Richards, Manhattan, Kans.: "Light shoes are nice, but my feet get awful sore in a long race, and this reduces my morale and 'fight' badly sometimes. Heavy shoes reduce the amount of foot pain but increase leg fatigue. You can't win."

Dennis Condon, Milwaukee, Wisc.: "I'd make them all as large as size 14—my size."

Pat Lanin, Hopkins, Minn.: "No crap—stripes and bands, etc."

Robert Katz, Los Angeles, Calif.: "One with its composition such that there was no leather or animal skin used. This would clear my pacifist and vegetarian conscience."

Tom Hess, Denton, Texas: "I normally wear a shoe until it has holes in the soles. Worn-out shoes are comfortable."

Desmond O'Neill, Santa Barbara, Calif.: "The ordinary shoe presses the tendon onto any rough bone surfaces, causing bursae and tearing of the tendon. These injuries, which recently laid me up for three months for surgery, are becoming more frequent as more and more runners continue for years running on hard surfaces with bad shoes. The old warmup-type flats are no longer adequate, and we need a really radical approach to avoid these long-term injuries. My own ideal shoe would be a sole as thick and as multi-layered as the Tiger Cortez, but with a wider heel, slightly higher and a decent hard-rubber arch support (not the soft, meaningless things Tiger now uses). Combine that with a nylon shoe-top with lacing up the ankle and a cut-out heel counter, and you might have a better shoe. Uglier, yes, but almost anything would be better than the stuff presently available." (See Jeff Loughridge's glorified version of this shoe at right.)

Alan Willoughby, Albuquerque, N.M.: "I would like to buy each shoe separately rather than in matched pairs."

Thomas Johnson, Washington, D.C.: "A shoe for work or church that would look like a normal dress shoe."

Kathy Miller, Syracuse, N.Y.: "Something that didn't take my damn toenails off! I haven't been able to wear sandals for three years. If the toenails aren't off, they're purple and sore. . . Something that was pretty. Why don't they have purple shoes?"

Francis Porterfield, Spokane, Wash.: "I basically don't like any of them as I have too many foot injuries."

William Lewis, Forest Hills, N.Y.: "A rubber toe guard which is an

extension of the outer sole. Although I have never actually seen such a toe guard, I have faith in its existence and regard such an innovation as a great blow against the 'planned obsolescence' theory of American industry. I only hope the manufacturers do not decide to get cold feet as regards this feature but give the consumer a fair break."

Jim Pearson, Bellingham, Wash.: "It is obvious that there is the technology to produce cheap, flexible and durable rubber for shoe soles. Let's have it."

Lewis Hammond, Granville, Ohio: "I would think some US manufacturer could make one as economical and built as well as those from overseas."

Peter Vaill, Coventry, Conn.: "I have come to feel that the nature of the stride, the speed at which you run, and the amount of hills and sharp curves have as much to do with shoe comfort for distances above 8-10 miles as the construction of the shoe itself. A really good shoe would be one which did not produce foot problems at 12-20 miles. I sometimes feel the manufacturers are only expecting purchasers to use their shoes for the shorter distances, like 3-8 miles."

Maynard McKinney, Denver, Colo.: "I've never really had trouble with shoes or feet until last summer when I went from working out at a mile or two a day to six miles a day in six weeks. So the shoes weren't at fault, but instead me and possibly old age catching up."

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