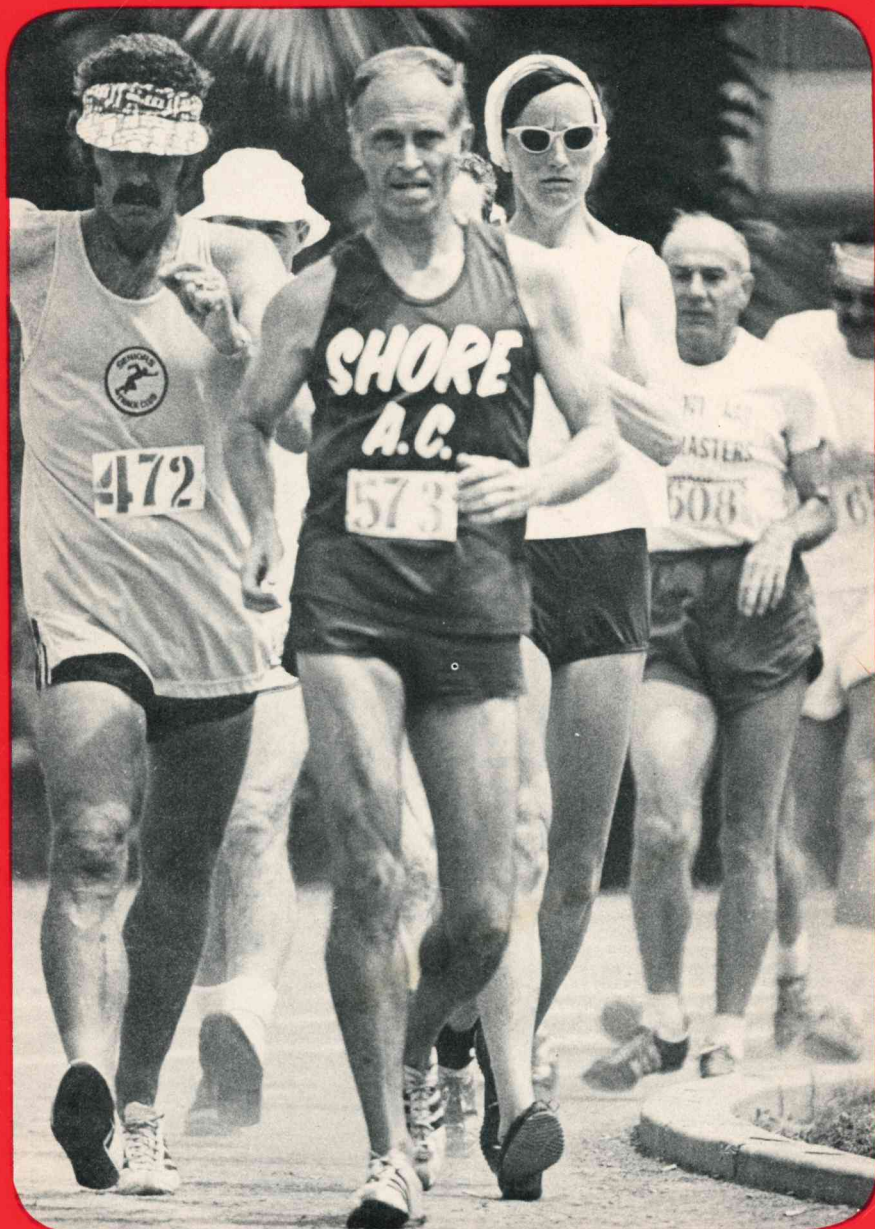


RACE WALKING



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RACE WALKING

by Martin Rudow



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CONTENTS

4	FOREWORD
5	WHAT'S WALKING?
7	A Bit of History
10	HOW TO WALK?
14	Taking Care of Flaws
17	Matters of Judgment
20	HOW TO TRAIN?
21	The Sprint Races
24	50-Kilometer Work
27	Ultra-Long Distances
29	Powering Through (by John Jesse)
31	One Important Stretch (by Ian Jackson)
34	WHERE TO WALK? (by Elliott Denman)
36	The Young, The Women
39	Opportunities After 40
42	WHO WALKS WHAT?
43	Metric Conversions
44	Olympic Medalists
46	Race Walking Records

COVER PHOTO BY STAN PANTOVIC

FOREWORD

You don't have to be a race walker to understand and admire the people in the sport. It's enough to be a long distance runner who has traveled some of the same routes.

Not so long ago, road runners had about the same status as walkers do now—which is to say almost none. Anyone who went out in public to train was laughed at and jeered. Except at Boston once a year and at the Olympics every four years, official groups ignored long distance runners. Marathoning appealed only to rugged, thick-skinned loners. Then it became respectable...

Thousands of Americans now run races on the roads. Nearly every town has its resident marathoner, who isn't thought to be too strange because the same town has dozens of joggers on its streets, too. Jogging has made longer, faster running respectable.

The same should be true of walking. Far more people walk than jog for exercise, so more of them should gravitate to race walking for sport. And long, fast walking should enjoy even more status than its running counterpart. But it has not happened that way. At a time when more than 5000 US runners a year compete in marathons, only about a hundred walkers try the standard 20- and 50-kilometer walking races. There are several reasons for this. Long distance runners faced some of them 10 or 20 years ago. Some are unique to walking.

Walkers look funny to people whose idea of a hard walk is a one-block hike to the corner store for a six-pack. A race walker in full-flight puts everything into his act. Knees, hips, arms, shoulders, even facial expressions have total effort written all over them. It's effort most people aren't accustomed to seeing or making. So they laugh and shout as they once did (and occasionally still do) at runners.

Runners once faced official neglect. Walkers, however, have had to deal with outright hostility. When Olympic officials decided to reduce the size of the Games, their first target was race walking. They decreed in 1972 that the Montreal Games would have no 50-kilometer event, and Games after that would have no walks at all.

It could have been a fatal blow to the sport. But the aristocrats of the IOC didn't reckon with the tenacity of walkers—a stubborn toughness born while walking through jeers and hardened in training and racing which is every bit as demanding as a runner's.

Walkers fought back. They assured everyone from the IOC on down that race walking would go on. At least one walk is likely to stay in future Olympics. Meanwhile, the sport is growing on other fronts. New recruits are coming in through the women's, age-group and veterans' programs. The American AAU is adding new championship categories and distances. At a time when race walking is supposed to be dying, it has never been healthier.

This booklet is for the new people of the sport—the athletes themselves, and the coaches and judges who support them. Since race walking is both an endurance and a technical sport, the emphasis is on combining proper training with an efficient and legal style.

The author, Martin Rudow, was the first alternate for the US Olympic team at 20 kilometers in 1968. He is also experienced as a walking official and coach.

What's Walking ?

Why would anyone want to be a race walker?

That's a harder question to answer than "why would anyone want to be a runner?" Running has become an "in" sport. People are generally aware of the benefits of running, from improved health to a chance at winning an Olympic gold medal. By contrast, race walking seems to be a silly, unglamorous and unrewarding sport. So, it may be asked, just what is there to motivate an active race walker, and to interest others in attempting the sport?

First of all, there *are* tangible rewards to be gained. Let's take, for example, the amateur athlete's biggest reward—a berth on a national team. Even with walking's role in future Olympic Games clouded at the moment, there's still the 20-kilometer event as a goal. And it seems likely that at least one walking event will be retained in future Games.

There are other trips to be won besides the big one to the Olympics. Every major United States track team since 1958 has included at least two walkers. The US-USSR outdoor meet, for instance, has included a walk in every meet since the series' inception, as has the US-Soviet Union indoor competition. The Pan-American Games also offer walking events.

In the United States, the AAU promotes national championship races at distances ranging from one mile to 100 kilometers. These are prestigious races, with good awards and publicity. Taking part in at least one such race per year is a good incentive for any walker.

Running, of course, offers positions on national teams and national championship races open to all. But running doesn't provide the same opportunity to make the teams and place well in the races because there are more good runners than walkers. In many national championship race walks, the quality thins out after the first few places. There just aren't enough top walkers able to travel to all the big races. This fact opens the way for under-trained and less gifted athletes to pick up medals. Even trial races for major teams occasionally have weak fields. If injuries or lay-offs take care of only a few of the best walkers, the race is suddenly wide open and berths on the team may go to "unknowns."



The effort of a hard 10-kilometer walk is written on the faces of Larry Walker (left) and Todd Scully. (Stan Pantovic photo)

Women and young age-group walkers find an even more wide-open field in this sport, since their championships have only recently been staging walking events. Since the track clubs which dominate these two categories of track are point-total oriented, they are now anxious to recruit and support walkers. Walking events are now offered in every level of age-group and Junior Olympics programs. And women's overseas tours are being organized, with true international competition a definite possibility in the near future.

In addition to the material benefits, race walking is a great fitness activity —perhaps even more so than running. Every muscle comes into play when the correct race walking style is used. Few others sports contribute as much to total fitness.

There are social and psychological rewards, too. Camaraderie among walkers is high, and fast friendships are easily made. The walker soon develops a “to hell with you” attitude toward hecklers which is great for mental health. And once correct walking style has been mastered, the sport gives pleasant sensations (I’ll avoid the overused “high”). The entire body seems to be in rhythm, with every muscle functioning perfectly to propel you along. It’s a feeling you won’t be able to duplicate in another sport. There’s just nothing like the sensation of whipping down a winding road with the breeze in your face, your entire body swinging with the walking action... and to hell with those hecklers!

A BIT OF HISTORY

It may come as a surprise to learn that race walking has a long and rich tradition. Records show that walking races existed as far back as the 16th century, and in the 1700s and 1800s walking races were held on a regular basis in Europe and England. These included organized national championship events.

However, *true race walking* as we know it today really began around the turn of this century, with the return of the Olympic Games and the emergence of George Larner of England as walking maestro of the day. Larner truly is the “father of modern race walking.” His times still would be a respectable today, and his style was universally regarded as flawless. Larner brought a degree of respectability to the sport, and it received official status with its inclusion in the 1908 Olympics.

In the early years, the Olympic events vied with ultra-long distance walks for popularity. Britain, the United States and Canada dominated early international competitions. But this three-nation mastery was broken with the emergence of Italy’s Ugo Frigerio, one of the most flamboyant and colorful characters in track and field history. Frigerio’s crowd-pleasing antics included leading applause on his own behalf, giving lap-long fascist salutes to the crowd, trading comments with spectators and the like. He brought a lot of attention to race walking, and won three Olympic gold medals (two in 1920, one in 1924). Although his times fall short of today’s standards, clearly he dominated his era.

Walking was dropped from the Olympic Games after 1924, due to protests over judging irregularities. A 50-kilometer event was reinstated in 1932, and that distance was added to the European Championships in 1934. Thus, the 50-kilometer became the standard international walking distance (and remained so until it came under attack by the International Olympic Committee in the 1970s).

British walkers again rose to the top of the sport in the 1930s, with occasionally strong competition from the continent. During and after World War II, Swedish walkers were dominate—almost awesomely so. Times recorded by sever-

al Swedes have yet to be surpassed. But as is so often the case, the style of many of these walkers is suspect. From out of this mixed bag of doubtful times and doubtful performers, however, came two of the sport's greatest champions—John Mikaelsson and John Ljunggren.

Mikaelsson, walking with impeccable form, won the newly readopted 10,000-meter events in both the 1948 and '52 Olympics. His countryman Ljunggren won the 1948 "50" and went on to take bronze and silver medals at the same distance in the 1956 and '60 Olympics. He continued to place in international competition through the mid-'60s.

Meanwhile, during the 1940s, '50s and early '60s, United States race walking sank to perhaps its lowest level ever, with few real athletes in the sport. In all areas of consideration—style, times, international competition—race walking was at the bottom of the track and field barrel.



Vladimir Golubnichiy (left, number 831), two-time Olympic champion, is perhaps the most successful walker ever. (M. Shearman)

More recent history includes great performances by a few truly gifted athletes. Outstanding among these is Russia's Vladimir Golubnichiy, whose long-time rule of the 20-kilometer distance is unparalleled. The "20," added to the Olympic Games and the European Championships after the 10,000 meters proved too difficult to judge adequately, has been Golubnichiy's property for more than 15 years. He first set a world record for the distance in 1958 at the tender age (for a walker) of 22. His list of accomplishments since then includes two Olympic gold medals (1960 and '68), one silver (1972) and one bronze (1964), a European Championships gold (1974), silver (1966) and bronze (1962).

Golubnichiy emerges as the top figure of modern-day walking, followed by East Germany's Christoph Hohne and West German Bernd Kannenberg, in the longer distances, and Englishman Kenneth Matthews in the sprints. Eastern European countries and Great Britain have been the walking powers in recent years, with only an occasional challenger from outside to break up this mastery. Larry Young of the US, two-time Olympic bronze medalist at 50 kilometers, is a good example of a lone athlete rising from a rather weak walking country to challenge the best.

In the United States, race walking is perhaps in its "golden era" now, with interest in the sport increasing among age-group and female athletes. Besides Larry Young, the US has Ron Laird and Rudy Haluza who have at times been able to walk with the world's leaders.

But, just when the future of race walking in the US and abroad looked very bright, the sport was dealt a severe blow. A 1972 decision by the International Olympic Committee removed the 50-kilometer walk from the Olympic program for Montreal, and the "20" from Games after that. Other international meets have followed suit, threatening the future of race walking as an international sport.

Even if these absurd decisions are allowed to stand, however, it seems inconceivable that the sport will die. Perhaps there will be a return to long distance road walks, or perhaps interested countries will set up their own world championships of race walking. Enough dedicated athletes and officials remain committed to the sport to guarantee it a future in some form.

2

How to Walk?

The official International Amateur Athlete Federation (IAAF) rulebook states that race walking is progression by steps taken so that unbroken contact with the ground is maintained. Also, the advancing foot of the walker must make contact before the rear foot leaves the ground. Equally important is the rule that the knee of the supporting leg must be straightened as it passes under the center of the body.

Race walking judges enforce these rules. Flagrant violations may bring instant disqualification. If a judge feels that “creeping” (walking with bent knees) or “lifting” (walking with loss of double contact) *may* be taking place, a warning is given. With two such warnings, from one or more judges, the walker is disqualified.

Correct style, and the enforcement of it, justifies the existence of race walking. Without it, the fastest runner would also be the fastest walker. It must be emphasized that walking is a skill as well as a strength sport. No matter how well conditioning an athlete may be, if he or she cannot walk fairly, this athlete has no business competing in a walking race.

If all this sounds complicated, and the development of fair style appears to be a hassle, don't worry—it really isn't. Race walking is basically nothing more than fast walking, just as if you were walking at a fast tempo for any reason. This basic natural action is refined and perfected, not distorted or exaggerated, in race walking. Keep this basic fact in mind while learning the race walking techniques.

This booklet is written with the thought in mind that the beginner will probably be coaching himself or herself, or at best, will have a non-experienced coach or helper. There aren't many experienced walking coaches around. If you have a friend, advisor or coach who is willing to learn with you, have this person use *Race Walking* as a guide to checking the progress of your style. I'll approach the subject as simply as possible and tell you what to watch for along the way.

The reason for race walking's apparently awkward and herky-jerky motion (I emphasize the word *apparently*) is simply that this motion allows the fastest progression under the rules. The hips are turned (*not* swung side-to-side) with the stride to increase its length. The arms are swung for balance and power.

The photos on pages 12-13 illustrate the correct style. Larry Young, two-time Olympic bronze medalist in the 50-kilometer walk, illustrates race walking as it should be done. For simplicity, I'll break down the units of the walker's style to illustrate the components of the correct stride. Study the photos for the total effect.

● **Hip Rotation:** As the leg swings forward, the hip is rotated down and forward, increasing the length of the stride. To illustrate the naturalness of this motion, try walking normally but with a slightly longer than usual stride. Feel the ball-and-socket hip joint as you walk. Notice the forward and downward movement. In race walking, this motion is extended because of increased stride length and leg speed. This hip rotation and drop will develop naturally as the hip girdle loosens up with more walking.

● **Knee Lock and Thrust:** The rules call for "straightening" the knee as it passes under the body's center. Many walking authorities feel one needs to go beyond simply straightening the knee to give the stride power. A hard lock, started almost as soon as the heel makes contact with the ground, helps pull the supporting leg through. This knee straightening and locking is easy for some walkers to develop, difficult for others. If you are one of those who has difficulty, I emphasize the importance of learning the *correct* technique. Even if you straighten enough to pass the judges' eyes, you will never reach your full walking potential without a hard lock.

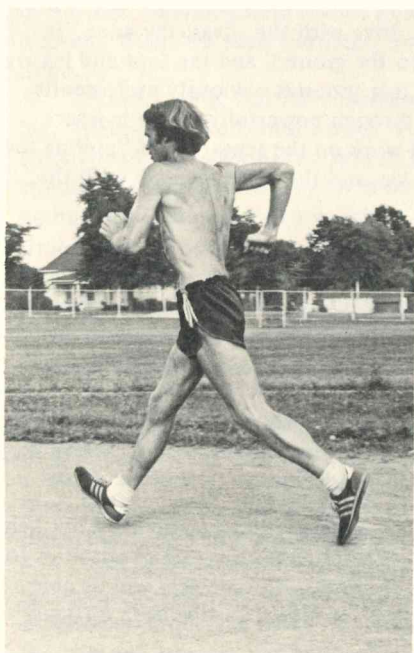
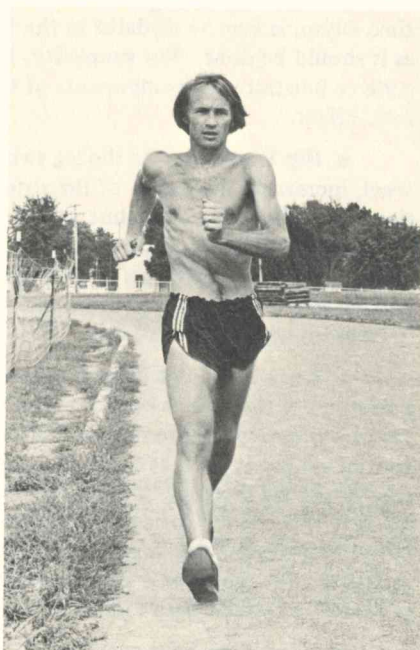
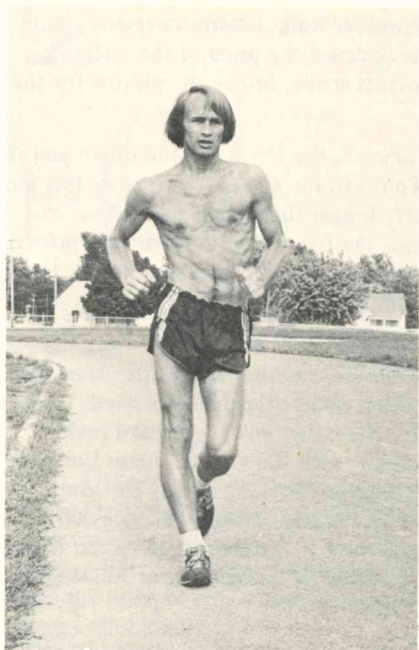
● **Foot Placement and Power:** The heel-to-toe movement is basic to race walking style. To walk correctly, the heel of the advancing foot clearly touches the ground before the rest of the foot, and the toe just as clearly leaves the ground last. Don't push off from the toe. Rather, drive with the advancing knee. In hard sprint walking, the heel is jammed into the ground, and the foot and leg are pulled back powerfully. In distance races, this action is obviously more gentle.

The knee of the trailing leg is thrust through powerfully. Here is where real leg speed is gained. The walker should work on the sensation of "pulling the ground underneath him" with the support leg, and thrusting through with the trailing knee.

● **Arms:** As in normal walking, the arms swing counter to the legs' motion—left leg with right arm and vice versa. However, the race walker's arms should be bent at a 90-degree angle, and go through an arc with the hands reaching no farther back than the ball joint of the hip (or the vertical seam in the side of most shorts) nor higher than the mid-chest area. Hands are clenched loosely, never tightly clenched or dangling.

A strong upper body can be a real asset to a walker, as the driving of the arms can add power to the stride. Powerfully-built walkers can literally slog their way through exhaustion by keeping up a strong arm drive.

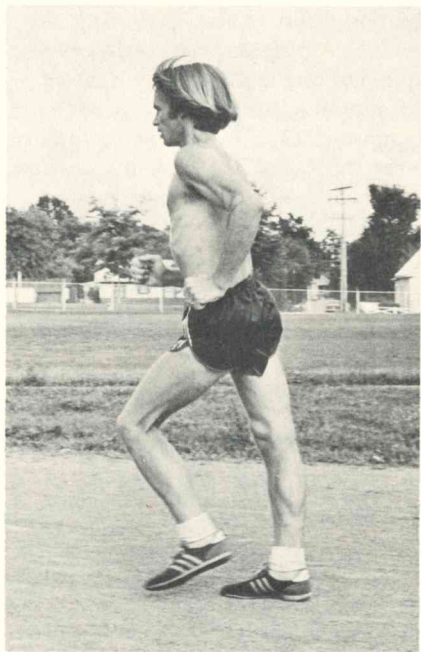
● **Trunk and Body Balance:** The torso, neck and head are relaxed but held in an upright position. Upper body tenseness leads to fatigue and contributes to "lifting." Walk with good body balance at all times. An onlooker will be able to tell when you are bending too far backward or forward. It's often difficult to detect this fault yourself.



UPPER LEFT: Note the hip drop and level arm action. The left knee is driving through as the corresponding hip drops and swings forward. The right leg is firmly planted.

UPPER RIGHT: The correct hip twist. Note that the stripes on the right of the trunks are plainly visible as the hip is turned toward the camera. Lead hip has been thrust forward, thus increasing stride length.

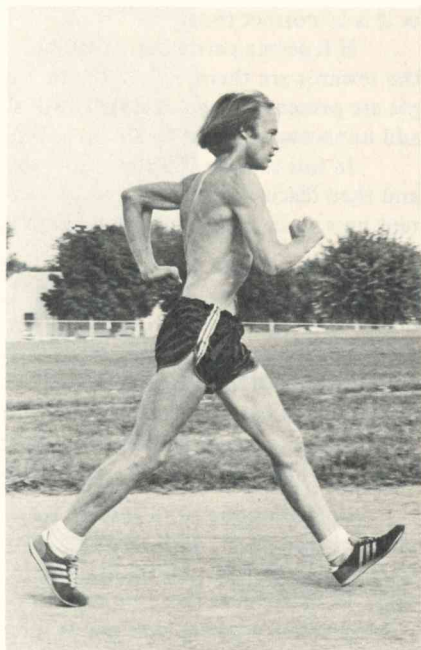
LOWER LEFT: Near full leg extension. Arm action is forward and low. The leading leg is already straightened just before the moment of contact.



UPPER LEFT: Excellent shot of hip drop and turn. The right leg firmly planted, the left knee driving through.

UPPER RIGHT: Just after the moment of contact. Note the firm knee lock. Larry is pulling with the right leg, driving with the left knee.

LOWER RIGHT: Another view of full-stride extension. Note that the rear foot is almost perpendicular to the ground. This permits the trailing toe to be in contact as long as possible, allowing extreme leg extension while maintaining the required heel-toe contact.



● **The Total Picture:** Study the photos of Larry Young. His stride looks economical, powerful and fluid. The body is erect, the arms travelling through the correct arc, in sequence. This is the proper walking motion. Duplicate Larry's form and you will have reached the highest level in the art of race walking.

A properly moving walker is poetry in motion. Once you come to appreciate the correct movements, you'll realize the truth of this statement and share the walkers' frustration over people who laugh at a conditioned body moving efficiently.

TAKING CARE OF FLAWS

The two most common faults which bring about disqualification are, again, "creeping" and "lifting." Several style flaws combine to bring about these losses of form, and the competitor and coach must work conscientiously to correct them. The earlier in a walker's career that style flaws are detected, the easier it is to correct them.

If it seems particularly difficult to correct a style problem, remember that the rewards are there. When the important races come up, and experienced judges are present, the good stylists will always come out on top. Also, style flaws add unnecessary stress to an already stressful activity.

In this section, I'll show how to detect the style flaw, show its bad effects and then discuss ways to correct it. Working with a coach or advisor is important here since many style flaws aren't apparent to the walker committing them.

1. Arms held too high. This leads to "lifting" as the body's center of gravity is pulled higher, and it also leads to quick fatiguing of the arms and upper body. This flaw is easy to detect. The arms are tense and pumping vigorously, with the elbows bent at greater than the desired 90-degree angle. Also, the hands go through a wider range than the line-of-the-hips-to-mid-chest that is desirable.

To correct this flaw, walk with the arms folded on the chest or with hands grasped at the small of the back. Practice keeping the shoulder relaxed, especially while sprinting. Work on developing the proper arm-swing arc.

2. Tilting the head too far forward or back. This causes tension in the upper back and chest, with resulting fatigue. Forward lean also has the tendency to make the walker pull the trailing foot away too soon. To detect and cure this fault, keep the eyes fixed on a point on the ground about 10 feet in front of you. Also, practice walking with hands interlocked behind head. Relax the neck and upper body.



High arm action and tensed upper body lead to “lifting” with this walker. Note that both feet are off the ground. (Jeff Johnson photo)

3. **Arms held too low or parallel to the ground while walking.** This is an excellent way to *avoid* lifting, but is a slow and cumbersome walking style. To correct the problem, imitate the proper movements, remember the correct swing (hand from hip line to mid-chest), keep the elbow at the preferred 90-degree angle.

4. **Walking with the feet tracking two parallel lines, turning the feet too far outward, or one foot crossing over the other.** These flaws in foot placement all lead to the same problem: "lifting." Also, the walker is not getting the full benefit of the hip movement, as proper leg extension is not being achieved. These flaws may be detected visually by a coach and by walking on slightly soft surfaces and checking the foot impression.

Probably the easiest way to correct these flaws is to walk with both feet coming down on a straight line, such as on a lane marker on the track or a painted line on a road.

5. **Walking with the thigh coming forward too quickly and the leg extended before touchdown (known as "goose-stepping"), or landing with the forward foot flat instead of on the heel (flat-footed running).** Both flaws lead to "lifting" since correct heel-toe contact is not possible. This exercise can correct the problem: stand with the forward foot in contact with the ground at the heel, trailing foot in lift-off position, in contact at the toe. Shift the body weight back and forth between the two. This action stretches and strengthens the necessary muscles and tendons.

6. **Excessive backward or forward lean.** These lead to fatigue in overextended muscles, interfere with good hip rotation and lead to "lifting" as the desired low center of gravity is not maintained. These are common faults among beginning walkers, especially forward lean while sprinting. They must be detected by a coach since the walker is usually not aware of a problem. Once detected, these flaws are best cured by walking with a pole held behind the back in the bend of the elbows. A feeling of "sitting on the hips" helps develop correct alignment. Strengthening stomach muscles may also help.

7. **Insufficient hip rotation.** This severely limits the walker's stride, and if speed is attempted a short stride inevitably leads to "lifting." The tell-tale sign of this flaw are short, choppy strides, especially in relation to the walker's height. To overcome the problem, exaggerate proper hip motion by overstriding and crossing over. Gentle stretching exercises and yoga routines can do much for walkers with overly tight hip girdles. (Many of these flaws may be remedied by attention to them combined with the yoga and weight lifting routines discussed in chapter three.)

MATTERS OF JUDGMENT

If it's sometimes difficult for outsiders to understand why anyone would want to be a walker, imagine how difficult it is to explain why anyone would want to be a walking *judge*! There's even less glamor in judging than in competing. But once one realizes the vital importance of competent judging, and how much he or she is needed by the walkers, the role of walking judge can be very rewarding indeed.

Correct race walk judging is a very challenging art. In fact, this challenge is one of the role's main attractions for many of us. Making calls which may decide the make-up of the Olympic team, for instance, test one's self-confidence to the fullest.

To the coach, parent, fan or even the competitor thinking of becoming a judge, I offer the following judging guidelines based on years of judging in walks from age-group all-comer meets to national championships.

By now the reader should be well aware of the rules specifying what constitutes fair walking. Two infractions which may result in a competitor's disqualification are "lifting"—walking with both feet off the ground simultaneously, "breaking contact"—and "creeping"—walking without straightening the knee it passes under the body's center.

LIFTING

The amount of time a walker may have the required double contact is extremely short. It is often virtually impossible to actually see the contact or lack of it, especially in marginal cases. Hence, the judge often must rely on the tell-tale signs of lifting which we've discussed in the earlier section on style. To review, these signs are: head bouncing up and down, rear foot kicking high, an overall "bouncy" appearance and high, vigorous arm action. These indications, if obvious and consistent enough, call for a warning. Two of these warnings bring disqualification. These "indicators" are not always needed. Many times, especially at the start of finish of a close race, it *is* possible to "see daylight" under both feet.

CREEPING

Walking with bent knees—creeping—is much easier to detect than is lifting. A long sideways look as the walker passes by is often enough. In marginal cases, checking the walker's quadriceps muscles may help. If the knee is being straightened, the muscles should smooth out as the leg passes under the body's center. The rules do not specify that the knee must be *locked*, but it must be straightened as it passes under the body's center.



Judges watch the progression of Tom Dooley and Goetz Klopfer at the AAU track championships. (Donald Duke photo)

GENERAL ADVICE

It's often a good idea to work with a more experienced judge, especially when starting out. However, don't let the other judge's particular prejudices become your own. Certain styles may look suspicious to some judges, not so to others. As you gain more experience, you should develop your own feelings for what the indicators of legal and illegal walking are.

In the opinion of many top judges, a position slightly to the rear of the walkers is best for judging. Walking or jogging along behind them for a few steps is helpful in picking up their rhythm. Judging from directly behind or in front of the competitors is regarded as a bad practice, since these angles give distorted views of the walker's stride. Some judges sit or lie on the ground, but its doubtful if these practices help detect fouls any better.

When warning a walker, be sure he or she hears you. Call the athlete by name and number, and point at him or her if possible. Let the other judges know of your call as soon as you can, since after you have given this warning the next warning will bring disqualification.

Don't hesitate to judge both new and experienced walkers severely. But when you do, be able to demonstrate what they were doing wrong. This is especially important in the case of newcomers, who need to be shown the proper style

and work out form problems early. It can also be helpful to show exactly what the problem was when you are confronted by an angry and self-righteous experienced walker who may abusively question your judging competence.

Be especially alert at the start and finish of the race. Don't fall into the trap of taking a "let them settle down first" attitude about early-race foulers. A walker who gets ahead of the field by early lifting or creeping and later settles down to walk fairly may win by the very margin gained illegally. And so what if a competitor has walked the whole race fairly, only to foul in the last few strides? The other walkers who have walked the *entire* race fairly deserve your sympathy and support, not the last-minute rule-breaker.

It takes some time for a judge to get a real feel for his or her calling, even after a long background as a competitor. It takes even longer, in some cases, to get the courage to "call 'em as you see 'em." But eventually a good judge can spot a "lifter" or "creeper" quickly, and be sure enough of his or her judgment to hand out warnings and disqualifications as needed. Remember, as a judge the future of the sport of race walking is in your hands.

4

How to Train?

Regardless of the racing distances being trained for, walkers should keep several principles in mind while planning a training program:

1. **Overall body strength and flexibility is extremely important.** The body's total muscular system comes into play while race walking, much more so than in running. And because of the need for hip rotation, heel-and-toe extension, etc., good flexibility is equally important. Accordingly, weight training and flexibility exercises should be incorporated into a training program. (Suitable routines for strength and flexibility are included in this chapter.)

2. **The ability to keep going hard with good form throughout the race is essential.** If strength is not matched by the ability to hold good form, disqualification will usually result. This *lasting* strength can be built in by covering racing distances at least once per week in training.

3. **Legal style should be emphasized in all training.** The only way to build in the habits of correct style is to repeat them over and over. Having a knowledgeable coach, advisor or training partner nearby helps, but the walker must learn to check his or her own form while training using reflections in store windows, walking on highway or track lane markings, etc. Only in extreme high-speed training sprints can the walker throw caution to the wind and sprint all-out without regard to style. But this should be done only rarely. Keep in mind at all times the basics of developing and maintaining good style as discussed earlier.

4. **The practice of incorporating running into race walking training remains controversial.** Some walkers run often, others never. Running probably is beneficial for sprint walkers, less so for the distance specialists. All in all, I feel that the athlete is better off spending training time walking, if a choice must be made.

5. **Proper equipment is a must.** Race walking is an inexpensive sport, so there should be no skimping when purchasing walking shoes and clothing. Be sure to use well-padded shoes with good cushioning features in the bulk of your training. Shoes with built-up heels are essential, as are molded arch supports and firm heel counters. When racing, light and less protective footwear may be substituted. Loose-fitting, seamless clothing is advisable to avoid chafing.

THE SPRINT RACES

SHORT SPRINT TRAINING

The indoor and outdoor track circuits, with their steady diet of 1-3-mile walks, are exciting and rewarding in terms of spectators and quality awards. But specific training and sharpening for these races often takes away from the consistent training needed for a hard effort later on at the important 20-kilometer distance.

Many top walkers in the United States have turned in world-leading times for one mile—but are left far in the rear at longer distances. If the walker really wants to make a showing in the yearly trial races at 20 kilometers—and perhaps win a place on the national team—he should “train through” these track sprint races, ignoring special preparation for them. If he can compete successfully on this basis, fine. (I say “he” here because this situation doesn’t apply for women walkers. Their longest race at this time is 10 kilometers. For them, most important races *are* short sprints. Age-group boys, too, have only the sprints to aim at in their championships.)

The walker training for the short sprint distances (1-6 miles or their metric equivalents) needs to emphasize lung power, leg speed, and smooth style. The ability to hold *basic* form together through these sprint distances is much easier than holding it through, for instance, a 50-kilometer race.

Here, interval walk training and running are important. The longest distance covered in training need not be more than six or seven miles. Perhaps competing in an occasional 20-kilometer event would be helpful for basic strength, but competing in longer races would tend to diminish leg speed needed for the sprints.

Good style, as always, is of the essence. Sprint walks are the closest and hardest to judge of all walking events—so if the walker doesn’t have smooth style to begin with, it’s best to forget concentrating on the sprints. “Lifting” is the biggest problem in these events, so it is necessary to work hard on the methods described earlier in this booklet to overcome this fault.

Probably the best known sprint walker in the United States is southern Californian Larry Walker. His training program is well suited for the sprints:

Larry Walker. Born 1943. 6’3”, 165 lbs. High school chemistry teacher. Ran in high school and college, began race walking in 1965. Competes for the Beverly Hills Striders.

Best times: Two miles—13:20 (1970), 5000m—21:44 (74), 10,000m—44:39 (74), 20,000m—1:36:38 (68). American record in the two-mile.

Training: Runs a great deal in training, much of it done with his high school cross-country and track teams. A typical week includes two days of fast running over 4-8 miles, one day of hard running intervals, one day of hard walk-

ing intervals, and one or two days of medium-paced walking over 8-10 miles. This walking training is done mainly to work on form. Races once every two weeks at most. Fifty miles total training per weeks is tops. Larry's training is limited because of job and family obligations, but it is doubtful if he would do more under any circumstances. He stays away from long distances entirely, racing only an occasional 20-kilometers if it is a national team trial race.

While this training program produces outstanding times for Larry, and would probably do the same for any good athlete, it took years of consistent work to build a background with it. Also, Larry had considerable form problems for years—something more attention to walking training might have eliminated.

Age-groupers and women can easily adopt a similar program. A season of cross-country running is a good strength-building base, and allows them to compete with their clubs. Training with the distance runners can go on throughout the track season, as long as walking intervals and an occasional overdistance day are included. Again, emphasis on good style when walking is especially important when running and walking training are mixed.



Larry Walker demonstrates high-speed walking technique: firm rear leg plant, hard driving forward knee, low and powerful arm action. (M. J. Baum)

20-KILOMETER TRAINING

Again, I want to emphasize that the successful long-sprint walker will aim all his training at *this* distance. The entire year should be used to build up for one race or a short season of races. This is the approach taken by other distance athletes, and the approach taken by successful European walkers.

Ideally, the season is broken into segments. As an example, a typical year has its trial race in late spring and major international events in the summer. A long preparatory season from early fall to early spring means the walker begins with short- to medium-distance strolls, running, weight lifting and perhaps playing other sports—nothing potentially injurious. During this period, special attention must be placed on correcting any style flaws detected during the previous season.

As this preparatory period progresses, the workload becomes heavier. Long, slow strolls of up to three hours are included once or twice each week, and effort is made to put in 100 miles per week in mid-winter. An occasional race or time trial may be beneficial, but no special preparation is made for such efforts.

Weight lifting and other exercises are stressed throughout the preparatory period. By late winter, the walker is strong enough in condition to last through a hard 90-minute effort with little trouble. This ability to go from 90 minutes or so is essential to walking a good "20," since world-class performances begin at this time.

The first competitive training period begins in early spring. The walker competes up to once a week, at all distances from one mile to 30 kilometers. A typical week's workout during this period incorporates one fairly strenuous three-hour effort, one or two time trails at seven miles or so, one day of intervals on the track, and two recovery days of 1-1½ hours strolling. Any sign of injury must be dealt with immediately. With the good base of condition, a few days off from training to heal an injury before it gets worse will not be harmful.

The week before the first major event is spent "sharpening" for the race. The techniques, such as tapering down, carbohydrate-loading, etc., are up to the individual walker. Since so much of the system is employed while walking, it's best to have little or nothing in the stomach before the race. No food or drinks of any kind should be taken during a 20-kilometer or shorter race, except perhaps for drinks in severe heat-humidity conditions.

Racing tactics are similar to those used by any distance athlete. In walking, however, you will find that most races are contested on guts and conditioning, not tactics. It's all-out right from "go." Successful 20-kilometer walking requires tremendous concentration since total, brutal effort must be matched with attention to legal style.

After the first major event, and before the international matches come up, a transition period of sorts is included. Other important meets may be held, but if the walker is pointing to international competition, he should avoid these events. The second competitive training phase begins with a build-up in training intensity starting four weeks before the next major event.

This year-long guide is meant to be general in scope. It can and should be adjusted, depending on exactly when the major races come and how major they are. Amount, type and intensity of intervals and time trials must be left to the individual.

TRAINING OF PAUL NIHILL

Even though he found his earliest success at 50 kilometers (second in the 1964 Olympic Games) Nihill established himself as one of the best of all-time over-20 kilometers in the years 1969-1972. His training methods and philosophies are here covered by Colin Young:

Paul Nihill's training gradually developed over the years regarding quantity but the severity remained relatively the same. The key factor from the very start was consistency, and he would often go for months without missing a single day's training. However, he usually has been held to one session per day, getting it in in early morning or late evening hours.

Mileage per week remained about the same during the peak racing months of late summer, but in the February to April period, Paul really put in the miles. The stock session was around 10 miles at eight minutes per mile pace in summer when alone, or 8:30-9:00 pace if in company or in winter's cold and darkness. Every Sunday a "long one" was put in—around 2½ hours in early winter, increasing to four hours in mid-February, and then cutting back again by mid-July. When alone, the pace would usually be at seven miles per hour, slower in company and in extreme cold.

In order to test himself and sustain the correct balance of speed and strength, Paul would put in a hard 20 kilometers every 10-14 days in winter, and even more frequently in the May to September period.

He often covered these 20-kilometer sessions in 93-95 minutes in good conditions.

Pure speed work was only indulged in during the summer months when a visit to a track once, or at the most twice, per week produced intense interval sessions. Paul's amazingly fast times were founded on these interval workouts—for instance, 6 x 800 meters at an average of 3:05 with just an easy 200-meter stroll in between.

Thus quite an uncomplicated weekly plan was adhered to throughout the years: five or six 10-milers, a long one every Sunday, with the occasional flat-out 20 kilometers and interval sessions (summer only) to add variety and speed.

Through the use of this program, Nihill achieved the following outstanding times: one-mile—6:05; 3000m—11:51; 5000m—20:44; 20km—1:24:50; 50 km—4:09:53; Paul Nihill's accomplishments include second in the 1964 Olympic 50 kilometers, first in the 1969 European Championships 20 kilometers and fifth in the 1973 Olympic "20."

50-KILOMETER WORK

Serious training for the 50-kilometer walk requires incredible dedication. While the training mileage figures may be no higher than those put in by serious runners, the *amount of time* required to put in those miles means that the walker must devote many hours a day to training.

Yet the rewards for 50-kilometer walkers are small—and becoming smaller. The Olympic Games, the European Championships and the Pan-American Games have all cancelled the event. Still, the 50-kilometer walk has the longest tradition of all walking events and it seems the most likely one to survive, despite current legislation.

If nothing else, mastery of the 50-kilometer walk elevates the walker in the minds of many (including the author) to near super-human status. I would favorably compare the overall physical and mental toughness of top-flight “50” men to that of any athlete in the world.

The best known American 50-kilometer walk is Larry Young, who finished third in both the Mexico City and Munich Olympic races. Here, Larry reveals how he prepares for the “50.”

Larry Young. Born 1943. 5'10", 145 lbs. Began race walking in 1965.

Best times: Two miles—13:29 (1973); 20 km—1:30:10 American record (72); 50 km—4:00:46 (72); 100 miles—18:07:12 American record (71).

My general philosophy on training has always been one of flexibility and determination. To spell this out in more detail, I usually try to set a goal of 80-100 miles per week. The quantity of miles is flexible according to how I am feeling both mentally and physically during the week. Most important in my opinion, however, is that I always try to keep a determined attitude toward the quality of all training miles.

The “meat” of my training lies in 10-15-mile workouts throughout the week. In addition, I train one long workout—30 miles—or two semi-long workouts—20-milers. Of course, each week’s training is determined somewhat by the previous week’s training and by past and future races.

When I go out for a training session with a particular workout in mind, and I happen to feel exceptionally good that day, I may intensify the workout, lengthen it, or both. I always push on these days as if I were racing, because good days like these give me the incentive to struggle through the bad ones. On the bad days, I try to accomplish what I set out to do, but if I’m feeling exceptionally poor I may slow down or cut the workout short.

One thing I continually try to stay aware of is technique. I believe technique is the basic secret to this sport, so concentration on technique during training sessions is especially important. When proper technique is not employed, training becomes much more difficult and improvement in races will be minimal no matter how many miles one puts in.

A good race walker has three essential ingredients: (1) the grace and control of a dancer, (2) the strength and agility of a gymnast, and (3) the endurance and perseverance of a marathon runner. In light of this, no one involved in the sport of race walking should ever feel inferior to other athletes.

Everyone will develop his or her own style according to body size and structure, but there are some basic techniques that are necessary if smooth, fluid, efficient and economical form is expected. I have found that careful scrutiny of films taken of top walkers in the world has been extremely helpful in picking up good basic technique. After watching films, I try to implement good techniques into my style.



Four of the best 50-kilometer men of all-time (l-r): Soldatenko, Kannenberg, Bartsch and Hohne. (Mark Shearman photo)

It is my feeling that poor or incorrect technique is the largest contributing factor toward injuries. The body can taken an amazing amount of punishment if you learn how to administer it properly. It is only after almost eight years of training that I have begun to realize how much the body can take and how to administer it. To reach one's potential, the athlete must remain continually aware of how much his body can take. With this knowledge, it becomes easier to tell if the body is on the verge of an injury or if it is just in pain. It is when the body is well conditioned and functions at peak performance that the punishment becomes pleasure.

Food intakes seems to be a question everyone wrestles with. I have experimented with different types and amounts of food, and I have determined what I feel is necessary for me to eat in order to maintain a good solid training program. Each person must determine the best amount of food intake according to his or her metabolism. It seems to me that if a person is training hard enough, there is no need to worry about being overweight. I have tried cutting my food intake in hopes that losing a few pounds would increase my performance, but this did not work for me. I have found that by eating three square meals a day I keep my weight up around 150 pounds. This keeps me strong for training and racing. My meals two to three days before a race usually emphasize carbohydrate foods.

ULTRA-LONG DISTANCES

Ultra-long distance walking, until recently an obscure branch of the sport, may yet prove to be its mainstay. This is especially likely if the proposed Olympic Games ban of walking events goes through. Already, interest is building in these super-endurance affairs.

On the US side of the Atlantic, walkers can compete in 50- and 100-mile, and 75- and 100-kilometer races. Genuine ultra-long distance specialists are emerging, especially at the 100-mile distance. So far, all these events have been held on tracks. The use of roads for long walks has probably been avoided because of officiating and traffic problems. However, such road events have proven to be extremely popular in Europe, and we may see similar races held in the US as interest grows.

Easily the most famous event is the Strasbourg to Paris walk, the longest annual foot race in the world. The length varies each year but is generally between 310 and 320 miles, and lasts three days. Two other classics on the European calendar are the Roubiax (France) 28 hours and the Lugano (Italy) 100-kilometer. The latter now attracts top 50-kilometer men from East Germany and Russia.

England's leading events are the London-to-Brighton (nearly 53 miles) and the 100-mile "Centurions" affair which offers life-long membership in the Centurions Club for all sub-24 hour finishers.

SURVIVING A LONG WALK by Colin Young

When one talks of preparing for these endurance efforts, it is really a question of consistent daily training, previous experience, common sense and guts. From a time and distance standpoint, training is nearly like that of a 50-kilometer walker, but the ultra-long distance specialist must work on the elements unique to his sport: judge the pace in the opening hours, keep the action going through the inevitable bad times and prevent the pace from dropping drastically in inclement weather and the unbelievably tiring later stages.

Eating and drinking naturally play a large part in success in endurance events and can quickly bring you through the "bad stretches" which inevitably hit you. I personally prefer such highly digestible foods such as liquid jello, tinned fruit and milky rice pudding—all ideal for events up to and including 24 hours. Warm tea is helpful on warm days, and soft drinks should never be taken too cold.

In races of more than 24 hours, more substantial food is needed in addition to the above. Omelettes, warm soup (with bread mixed in) and roast chicken are all used successfully.

Particular care must be taken to use vaseline very liberally (for obvious reasons). Spare clothes and shoes should always be available, as well as foul-weather

gear, even if the day seems promising when the race starts.

Concerning the *really* long ones, I have found that after 48 hours and 200-plus miles, hallucinations begin to set in, and sleep becomes impossible to avoid at compulsory rest stops. The stops are so short that one is awakened almost immediately and has to stumble back out on the road again, very much fatigued. The importance of having handlers along, and being aware of these problems before you encounter them, cannot be overemphasized.

All in all, the ultra-long distance specialist must (1) be a good judge of pace, (2) not get panicked, and (3) be able to take a hard jolt and come out of it, and above all, (4) never seriously consider even the thought of retirement. Good luck, and keep plugging!



**In long and ultra-long distance walks, fluid replacement is essential. Todd Scully replaces his without breaking stride.
(Bob Kasper photo)**

TRAINING FOR ULTRA-DISTANCES

Probably the best-known long distance specialist is Israel's Shaul Ladany. He has competed and won against the best long distance walkers from all over the world, and is almost unbeatable at distances of 50 miles on up. Shaul, however, is one of the few athletes who trains specifically for such events. He is able to put in repeated days of 6-12 hours of long, slow distance walking—a regimen that would surely drive others out of their minds. Shaul competes at every distance from one mile on up, so gets any speed training he needs from racing.

Other long distance walkers are not so much specialists as they are 50-kilometer men with easy, fluid walking style and basic endurance. Any walker with a long background of 50-kilometer training should be able to step up to ultra-distance affairs without a great deal of special preparation. From there, it's up to the individual's fortitude to "bash it out," as Colin Young would say.

POWERING THROUGH

by John Jesse

This article is adapted from a longer one by Jesse which appeared in the Australian publication *Modern Athlete and Coach*.

The basic premise that race walkers require more physical strength than do distance runners, or perhaps *any* other distance athlete, holds up well under scrutiny. The obvious exaggerated use of the body's total muscular system is noticeable to even the casual observer.

Simply study the builds of the top walkers of the last decade. Although apparently thin in street clothes, the proverbial Clark Kent transformation takes place when track gear is donned. Such powerhouse walkers as Vladimir Golubnichiy, Bernd Kannenberg and Ken Matthews have the upper bodies of competitive weight lifters, while slighter men such as Chris Hohne and Larry Young possess surprising strength for their builds.

Over the years, the powerfully-built walkers have shown more consistency under adverse conditions than their slighter counterparts. This leads to the conclusion that superior strength helps a walker power his way through such hindering factors as heat, rough and hilly courses, etc.

SCHEDULE ONE

- | | |
|---------------------------|-----------------------------------|
| 1. Wide-grip rowing | 7. Standing toe raise |
| 2. Wide-grip bench press | 8. Ankle dorsi-flexion |
| 3. Leg extension | 9. Hip extension |
| 4. Leg curl | 10. Bent-knee leg raise |
| 5. Straight-leg dead lift | 11. Arm swing curl |
| 6. Bent-knee sit-up | 12. Front and back neck exercises |

SCHEDULE TWO

- | | |
|----------------------------------|----------------------------------|
| 1. Bent-over lateral raise | 7. Ankle dorsi-flexion |
| 2. Supine bent-arm lateral raise | 8. Alternate hip extension |
| 3. Leg extension | 9. Alternate leg raise |
| 4. Leg curl | 10. Arm swing curl |
| 5. Bent-over twist | 11. Front and back neck exercise |
| 6. Seated toe raise | |

Perform at least two foot exercises for intrinsic foot muscles after each workout. Perform ankle adduction exercise, if required, to help in correcting foot deviations, and both ankle adduction and abduction exercises to strengthen weak ankles.



With the need for superior strength established, let's turn to the methods of achieving it. Some aspects of strength training should be engaged in year-round, but are best worked into the overall training scheme during the active rest and basic conditioning periods. Strength training shouldn't be engaged in more than once a week during the competitive season.

Besides the obvious benefits of not taking as much serious training time, off-season strength training also is best for style reasons: an increase in strength may be accompanied by style changes, and the walker must have time to work on these effects on his style and be sure that they don't detract from his legality.

Since few walkers will have the luxury of a well-equipped gym nearby, I'm presenting championship-level exercises that can be done with only a 150-pound barbell, two iron boots and two dumbbells. To *fully* describe the execution of all the routines advised would take too much space. I advise all serious walkers unfamiliar with weight lifting techniques to seek help from an experienced lifter or purchase any of the available weight lifting books. (Jesse's own *Strength, Power and Muscular Endurance for Runners and Hurdlers* is excellent.)

I'll present the basic routines for walkers. Again, these are specific routines for walkers' needs. You can learn the actual techniques from other sources—but be sure to include these exercises.

For strength development, use near maximum weights with low repetitions (6-8) in three sets; for muscular endurance, light to moderate weights employing a great number of repetitions (30-50) in two sets. It is suggested that the entire program given here be followed, remembering that to be a successful walker the *entire* body must be developed.

PAGE 30: The power of Bernd Kannenberg. (Tony Duffy)

ONE IMPORTANT STRETCH

by Ian Jackson (photos by Jan Herhold)

When I first saw Ian Jackson doing yoga poses during his lunch break, I thought he was wasting his time. Even when his articles on yoga and running generated enthusiastic responses, I was still skeptical. It was only when he taught me the triangle pose that I realized just how sophisticated youga is.

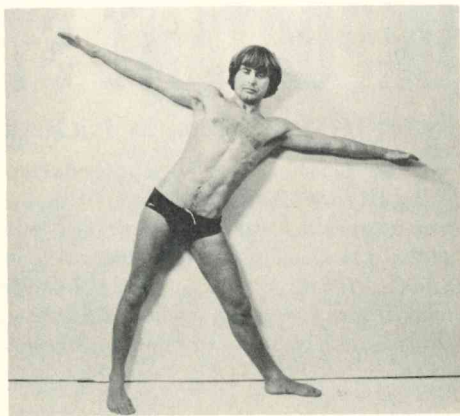
Now my attitude is "If only I had known." If I had been working with this pose, I am convinced that I would have been flexible enough to avoid injuries, and I know that it would have done wonders for my hip extension, leg power and body carriage.

The power of the triangle pose has to be experienced to be believed. From the outside, it looks simple and mild, but from the inside it is a strenuous and complex pattern of stretches. Read the directions carefully and examine the photos closely. The pose must be constructed, step by step. Go through each step with calm attention, so that the movement into the pose is a progression into awareness.



● Start the pose by bringing the feet parallel, about three feet apart. Extend the arms out horizontally from the shoulders. As you do this, try to avoid the most common mistake of beginners, which is to hunch the shoulders up as if expecting a blow on the back of the neck. Keep the shoulders down so that there is as much space as possible between the ear lobes and the tops of the shoulder muscles. Lift the ball of the right foot, and swivel it about 30 degrees to the left. Again swivelling on the heel, turn the left foot 90 degrees to the left.

● Check your hips and you will find that the right one has moved forward and the left one back. Adjust them so that they are again in the same straight-ahead position they were in when the feet were parallel. This may take some effort. To get a feel for it, make the foot adjustments with your back close to the wall and have someone push on your hip bones so that the buttocks rest evenly on the wall.



● Now "cock" the hips by moving the right one up and to the right. As you do this, your left hip will drop, your legs will move to the right, and your upper body will move to the left. All these movements are part of the normal compensations that must be made in order to keep the body balanced in the "cocked hip" position.



● Now turn the rib cage to the right; that is, work on bringing the left hip and shoulder forward and the right hip and shoulder back. Turn the head and gaze up at the right thumb. While you are in the pose, keep working on even more precise adjustment. Don't relax in the pose, or you will lose much of the effect.

● Keeping the arms stretched out, and focussing on stretching up so as to increase the distance between the tailbone and the top of the head, lean out to the left and bring the left hand down to rest on the left leg. This movement should be done on a single exhalation, smoothly and without straining.

● When you have done the pose to one side, be sure to repeat it to the other side. Simply change "right" for "left" in the directions.

Keep in mind three primary areas of tension. You should be trying to stretch out your spine so there is as much space as possible between your tailbone and the top of your skull. You should be stretching out between the left and right hands so that there is as much distance between your fingertips as possible. And finally, you should be working on twisting your trunk. The correct action feels like an "opening up" of the chest.

When your hamstrings have loosened and your pelvic region has opened up, you will be able to work in the pose for 30-60 seconds at a time. This will be too taxing at first, so you might begin by holding for just one or two deep relaxed breaths. Don't be discouraged by difficulty at the beginning. The rewards of patient persistence are far out of proportion to the time and effort expended.

This is only one of hundreds of hatha yoga asanas and it is very basic. It demonstrates the economy and sophistication of yoga. As you get into this and other asanas, you will be amazed at the insights the ancient masters of hatha yoga must have had into the structure and function of the body. For further information and instruction, see Iyengar's *Light on Yoga*, van Lysebeth's *Yoga Self-Taught*, and our Runner's Monthly Booklet *Exercises for Runners*.

3

Where to Walk?

by Elliott Denman

Elliott Denman is probably the best-known race walking journalist in the United States. He's sports editor of a New Jersey newspaper and gives walking excellent coverage. In addition, he's a fine competitor himself—1956 Olympic team member (50 km.) and still tough in the long events. Many walkers have found it necessary to handle their local walking program or there'll be no program. Here Elliott discusses ways to start and develop a local race walking program.

From personal experience, I know race walkers are out there everywhere, just waiting to be discovered. A dozen years back, for instance, the race walking program in the state of New Jersey was practically non-existent. Race walkers could count on only two races a year, in the indoor and outdoor New Jersey AAU championships.

But when a few interested people decided to pool their efforts and promote an active program of competition, race walkers suddenly emerged, people coming from all "walks" of life seeking to try a new athletic challenge.

The steps in getting a program on its feet aren't too long, but each requires some dedicated effort by people who know what they're doing.

1. Round up all the people in the area with race walking experience (you'll be surprised at how many there are). Include all the active competitors, retired walkers, officials and any coaches who know what race walking is.

2. Line up a race or series of races. Try to find a sponsor. You'll find many small towns eager for some publicity, recreation departments willing to try something new and businessmen who'll happily hand out trophies.

Publicize the event well. Work with all the local media. Make sure plenty of entry blanks are distributed to everyone with any remote thought of competing. Hit all the high schools, YMCAs, service clubs, health clubs, etc.

Make sure the event is efficiently organized, and over a not-too-difficult course. Give the competitors some good incentives—as we did in New Jersey by

promising medals to all who “proved their physical fitness” by completing a 10-mile walk in two hours or less. Beating the time limit became an important objective for a big pack of novices.

3. Make sure the event gets good post-race publicity. If you can get a person's name in the paper, you may have him or her hooked as a walker.

And thus, you'll be on your way to having a genuine “program.” From the original group of interested people, you'll now have a mailing list to call on for future races. And there will be no way to go but up.

There are all kinds of possibilities from here on—scheduling more races, providing competition on all levels (girls, masters, age-group), setting up events at different distances and organizing a full club team.

You'll probably have more success with a steady diet of middle-distance (10-mile to 20-kilometer) races. These appeal both to those primarily interested in the sprints and those who want to stress longer distances. They'll be a common meeting ground for all walkers.

All along the way, it's important to work with the people in the rest of track and field. Let high school coaches know what's going on. They'll usually pass the word on to their interested athletes. Keep your local AAU informed—and make sure that a race walking event of some kind is included in every all-comers meet. Always remember that America's Olympic medalist, Larry Young, got his start as a race walker at a run-of-the-mill Los Angeles all-comers meet.

Top American walkers (r-l) Ron Laird, Todd Scully, Bill Ranney, Larry Walker, Larry Young.

(Stan Pantovic photo)



Work with other track promoters. Talk to them nicely and they'll probably agree to include a walking event in their meets. There's nothing better than big-meet exposure to get race walking into the spotlight.

At every step, it's vital that race walking remain just that—and that the rules of the sport are strongly enforced. Years of good work can go down the drain in minutes if race walking is allowed to degenerate into jogging, "creeping" or cheating.

Race walkers must "look like" they are walking. It's more than embarrassing to have a non-race walking person tell you "that guy who won the race looked more like a runner than a walker." With proper rules enforcement, that situation will not occur.

And at this stage of race walking's progress, it's important to keep everyone motivated despite the hazy Olympic race walking situation. Don't let the mule-headedness of the IAAF or IOC deter one young walker from taking up the sport. To be sure, the Olympic battle will continue to be fought and there's strong hope of maintaining both the 20-kilometer and the 50-kilometer walks in all future Olympic Games.

But, whatever the case, race walking has all the ingredients of self-contained success. It's a perfectly natural sport. After all, more Americans walk for leisure than attempt any other activity. It's an inexpensive sport, requiring only shoes in the way of special equipment and an open road as a facility. And it does not require an intricate training routine.

With American leisure time growing and physical fitness awareness mushrooming, there's every reason to believe that race walking is on the threshold of a "boom" era.

THE YOUNG, THE WOMEN

Race walking has traditionally attracted few young or female athletes, in the United States at least. That's hardly surprising, since until the last five years there were absolutely no organized programs for either group. Women or youngsters with interest in walking either had to enter men's races (when they could) or give up the thought of competition entirely. These factors made walking a traditionally over-25 and "men only" sport. Today, however, these negative trends have reversed themselves to such an extent that age-group and women's walking programs are the fastest growing in the sport.

Women can now point towards the AAU outdoor track and field championships, open as well as age-group. The inclusion of walking events in these championship meets has made recruiting and developing walkers a top-priority goal among the thousands of girls' and women's track clubs all over the country.

For a time, rumors were heard of women's walking being included in the Olympic Games. But even with these hopes now on the wane, international competitions are being arranged. With the twin goals of scoring team points in the nationals and qualifying for an overseas trip now available, the women walking picture should continue to improve.

There are even more incentives for age-group and high school boys to get involved. The Junior Olympics now offer competition for walkers 9-17 years of age, and some progressive high school leagues even hold walking events as part of their championship schedule. A place on national teams is available to junior walkers too. The AAU's junior (19 and under) squad includes two walkers per year.

But perhaps the most significant factor in attracting young walkers is the National Association of Intercollegiate Athletes' (NAIA) inclusion of walking events in its national indoor and outdoor championships. Many member colleges now offer full track scholarships to top high school walkers.

One problem with this exploding growth in age-group and women's walk-programs is the lack of qualified coaches and judges. Without good style advice right from the start, new walkers often develop bad habits and advance through sloppily-judged local events, only to suffer a crushing blow when they are disqualified in bigger events. Many a promising walker has given up on the sport after such an experience.

All coaches who may be developing new walkers are urged to put to good use the style and judging guides given in this booklet. Now is the time to recruit new walkers to the sport, but emphasize proper style from the beginning. Get a good understanding of the sport before you coach or judge it.

The style and conditioning tips listed elsewhere apply to age-group and women walkers the same as to anyone else. The principles of style are universal, the amount of training is up to the athlete and his or her coach. Since most races these walkers will compete in are sprints of 10,000 meters or less, sprint training should be emphasized—but, again, correct style must come first!

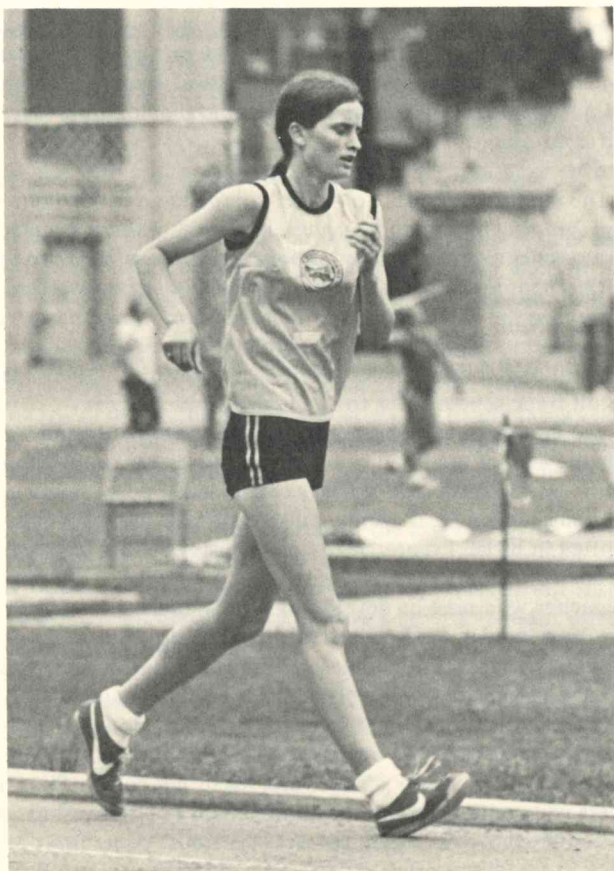
A look at two top young walkers—Jim Murchie and Sue Brodock:

Jim Murchie. Born 1957. 5'10", 140 lbs. High school student. Began walking in 1972.

Best Times: Mile—7:05 (1974); 10 km —48:30 (74); 20 km—1:40 (74).

Training: When training for the outdoor season, totals about 55-60 miles per week. Includes two intervals sessions, hill work, overdistance and running in the weekly program—a total of 6-7 workouts. In the indoor season, he does overdistance and intervals 3-4 times per week. Does weight lifting workouts 3-4 times per week also.

Jim is strongly motivated by the hope of making the US junior track and field team. He is able to compete with success in open men's competition and can now look forward to scholarship offers when he graduates from high school. His long-range goal is a place on the US Olympic team. Hopefully there will be such a position still available when he is ready.



Sue Brodock (Doug Schwab photo)

Sue Brodock: Born 1956. 5'6½", 110 lbs. Student in high school. Began running in 1966, race walking in 1970. Competes for the Rialto (Calif.) Road Runners.

Best times: Mile—7:15.2 (1974); 5000m—24:16.2; 10 km—53:40.2.

Training: Trains basically as a distance runner, but great emphasis is put on maintaining legal style. (Sue was style coached by an experienced judge, Bob Whitman, at the start of her walking career.) Once per week in track season, she walks intervals of between 220 and 880 yards, and once per week overdistances of 1-1½ hours. She is fortunate to walk with a club and in a district where walking enthusiasm and knowledge are high. Strong support from her coach and teammates no doubt helps to motivate her.

Most age-group walkers need to work more on style than Sue evidently does. But, as should be, the case with all beginners, she was coached very strictly in correct style right from the beginning.

OPPORTUNITIES AFTER 40

Race walking, perhaps even more than running, offers a wide variety of benefits for the over-40 athlete.

- **Fitness**—Race walking is at least as good a fitness activity as running. Some think even more so, since correct walking style brings the body's entire muscular system into use.

- **Competition**—Besides numerous veterans-only events, over-40 athletes are able to compete regularly against walkers of all ages, since the vast majority of events are open to all. Many races are handicapped, giving everyone a frequent chance for first-place finishes in races against world-class athletes.

- **Companionship**—Walkers, while a close-knit group, are always eager to welcome a newcomer to the fold. You'll find that everyone is willing to help you with style and training advice. You definitely aren't "lost in the shuffle" as is so often the case in running races.

- **Opportunity**—The major Masters meets all include walking competition, and the major open and national championship events usually have special over-40 division awards. Some older athletes have greater ambitions than fitness and fun, and don't limit their sights to their fellow veterans. These exceptional individuals have won international honors after 40.

Sweden's John Ljunggren was for many years the best example of veteran proficiency. As mentioned earlier, he had a long and successful career, and won honors in the prestigious Lugano Cup 20-kilometer as late as 1965, at age 46. More recently, West Germany's Gerhard Weidner set a world best at 50 kilometers and placed sixth in the Olympics at that distance while in his early 40s.

In the US, the two best-known and most successful veteran walkers are John Kelly in the distances and Rudy Haluza in the sprints. Both men present interesting profiles, especially with regard to their views on training, health foods and putting their sport in perspective.

John Kelly. Born 1929 in Ireland. 6'2", 168 lbs. Single. Occupation: gardener. Began walking in 1966, at age 37.

Best Times: Mile—6:42 (1968); 5000m—22:14 (69); 20 km—1:38:40 (71); 50 km —4:25:24 (68).

Training: Mixed running and walking at the start. (Was a national-class marathoner before walking. Moved to California in 1967 and undertook serious train-



ing under coach Mihaly Igloi. At that time, did twice-a-day training including hard intervals in the evenings. A tough day would be up to 70 x 440 plus warm-up and warmdown—a total of more than 20 miles on the track. After leaving Igloi in 1968, switched to longer, slower-paced efforts, only rarely interspersed with track intervals. Mileage went up, tempo down. In 1970-72, was training more than 100 miles a week with up to 40-mile strolls on Sundays. This extensive rather than intensive program produced several new personal best performances at all distances.

John was and is a great believer in natural foods and vitamin supplements, whether training or not. At 45, John reports that he now follows this regimen: "If I feel like walking when I come home, I walk. If I don't, I run. If I feel lazy, I sit and read. I think that's what life is supposed to be like when you hit my age. Fun and enjoyment, not hard work." This "fun and enjoyment" still adds up to about 50 miles a week of training, and keeps John on top of the heap in Masters competition.

Rudy Haluza. Born 1931. 6'0", 150 lbs. (when in shape). Married, three children. Occupation: Airline pilot. Began walking in 1951 after a fairly successful school running career.

Best Times: Mile—6:34 (1966); 2 miles—13:29 (66); 10 km.—44:15 (66); 20 km.—1:32:36 (68). Placed fourth in the 1968 Olympic 20-kilometer.

Training: Trains year-round, but intensity varies greatly. Now trains as much for exercise as for racing, and a typical "exercise" week totals about 60 miles of moderately-paced road work, no intervals or time trials. When pointing towards an important race, does include some overdistance, track work and time trials. When training hard and seriously, makes every workout hard; only takes it easy when exhausted from previous days' efforts. Believes in alternating hard, short intervals with time trials of 7-10 miles and hard overdistance work of 15 miles. Rarely covers more than 20 miles in one session. Rudy's training is aimed at the sprint distances, although his consistent training has allowed him to walk some respectable distance races without special preparation.

Rudy, too, is a great believer in natural foods and supplements. He takes almost every vitamin and mineral supplement on the market, and eats only "wholesome" foods. He credits a large degree of his ability to keep producing national-class results at his age to his diet.

A place on the 1976 Olympic team doesn't sound too far-fetched for this remarkable athlete, although he'll be 45 by then. Summing up his feelings on his career at this stage, Rudy writes, "I would like to have one more good year in open competition, and if the motivation comes along I hope the nutrition will provide me with the body to keep up."

Beverly Hills Striders teammates Rudy Haluza (left) and John Kelly (right) are side by side in a 20-kilometer walk. (Donald Duke)

5

Who Walks What?

Walkers compete nationally and internationally at distances from a quarter-mile to 62.2 miles (100 kilometers), and some non-championship events go even longer.

These are the major international championships, open only to men. A women's international five-kilometer walk was contested in 1974, and apparently will become a regular part of the world's schedule:

- **Olympic Games** (held every fourth year, 1972, '76, etc.)—20 kilometers.
- **Lugano Cup** (held every other year, odd years—1973, '75, etc.)—20 and 50 kilometers.
- **European Championships** (held every fourth year—1974, 1978, etc.)—20 kilometers.
- **Pan-American Games** (held every fourth year, 1975, '79, etc.)—20 kilometers.
- **Commonwealth Games** (held every fourth year—1974, '78, etc.)—20 miles.

In the United States, championship races are conducted at a wide variety of distances and for a number of different groups:

- **Senior Men** (open to all ages)—indoor track two-mile, outdoor track five-kilometer, 10, 15, 20, 25, 30, 35, 40, 50, 75 and 100 kilometers, and one hour for distance.
- **Masters Men** (ages 40 and up)—same schedule as senior men.
- **Class B Men** (walkers who have not won national championships previously)—same schedule as senior men, except no indoor two-mile and outdoor five-kilometer.
- **Junior Men** (ages 19 and under)—five, 10, 15, 20, 25, and 30 kilometers.
- **Junior Olympics** (ages 17 and under, boys and girls)—440, 880 and/or one mile.
- **Women** (all ages)—one mile, five and 10 kilometers.

METRIC CONVERSIONS

All but a few of the walking championship races are conducted over metric distances, even in the "non-metric" United States. On the other hand, some walkers who are more accustomed to the metric system sometimes set records at mile distances. This conversion table shows the mile-meter equivalents. (One kilometer equals 1000 meters).

METERS TO MILES

1500 meters	= 1640y 1'3"
3000 meters	= 1 mile 1520y 2'6"
5000 meters	= 3 miles 188y 2.4"
8000 meters	= 4 miles 1708y 2'8"
10,000 meters	= 6 miles 376y 4.8"
15,000 meters	= 9 miles 564y 7.2"
20,000 meters	= 12 miles 752y 9.6"
25,000 meters	= 15 miles 940y 1'
30,000 meters	= 18 miles 1128y 1'2.4"
35,000 meters	= 21 miles 1316y 1'4.8"
40,000 meters	= 24 miles 1504y 1'7.2"
50,000 meters	= 31 miles 120y 2'
75,000 meters	= 46 miles 1061y
100,000 meters	= 62 miles 241y 1'

MILES TO METERS

One mile	= 1609.344m
2 miles	= 3218.688m
3 miles	= 4828.032m
4 miles	= 8046.72m
6 miles	= 9656.064m
7 miles	= 11,265.408m
10 miles	= 16,093.44m
15 miles	= 24,140.16m
20 miles	= 32,186.88m
25 miles	= 40,233.6m
30 miles	= 48,280.32m
50 miles	= 80,467.2m
100 miles	= 160,943.4m

OLYMPIC RACE WALKING MEDALISTS

	SILVER	BRONZE
GOLD		
London, 1908—3.5 kilometers	Ernest Webb (England) no time	H. E. Kerr (Australia) no time
George Larner (England) 14:55.0	Ernest Webb (England) no time	E. A. Spencer (England) no time
London, 1908—10 miles	Ernest Webb (England) no time	Fernando Altimani (Italy) no time
George Larner (England) 1:15:57.4	Ernest Webb (England) no time	R. F. Remer (USA) no time
Stockholm, 1912—10 kilometers	G. L. Parker (Australia) no time	C. E. J. Gunn (England) no time
G. H. Goulding (Canada) 46:28.4	Joseph Pearman (USA) no time	C. C. MacMaster (South Africa) no time
Antwerp, 1920—3 kilometers	G. R. Goodwin (England) no time	Ugo Frigerio (Italy) 4:59:06.0
Ugo Frigerio (Italy) 13:14.2	Janis Dalinsch (Latvia) 4:57:22.0	A. Bubenko (Latvia) 4:32:42.2
Antwerp, 1920—10 kilometers	Arthur Schwab (Switzerland) 4:31:09.2	Fritz Schwab (Switzerland) 46:00.2
Ugo Frigerio (Italy) 48:06.2	B. T. I. Johansson (Sweden) 45:43.8	
Paris, 1924—10 kilometers		
Ugo Frigerio (Italy) 47:49.0		
Los Angeles, 1932—50 kilometers		
Tom Green (England) 4:50:10.0		
Berlin, 1936—50 kilometers		
Harold Whitlock (England) 4:30:41.4		
London, 1948—10 kilometers		
John Mikaelsson (Sweden) 45:13.2		

London, 1948—50 kilometers			
John Ljunggren (Sweden) 4:41:52.0	Gaston Godel (Switzerland) 4:48:17.0	Lloyd Johnson (England) 4:48:31.0	
Helsinki, 1952—10 kilometers			
John Mikaelsson (Sweden) 45:00.8	Fritz Schwab (Switzerland) 45:41.0	Bruno Junk (USSR) 45:41.0	
Helsinki, 1952—50 kilometers			
Guisepe Dordoni (Italy) 4:28:07.8	Jozsef Dolezal (Czechoslovakia) 4:30:17.8	Anral Roka (Hungary) 4:31:27.2	
Melbourne, 1956—20 kilometers			
Leonid Spirin (USSR) 1:31:27.4	Antanas Mikenas (USSR) 1:32:03.0	Bruno Junk (USSR) 1:32:12.0	
Melbourne, 1956—50 kilometers			
Norman Read (New Zealand) 4:30:42.8	Yevgeniy Maskinkov (USSR) 4:32:57.0	John Ljunggren (Sweden) 4:35:02.0	
Rome, 1960—20 kilometers			
Vladimir Golubnichiy (USSR) 1:34:07.2	Noel Freeman (Australia) 1:34:16.4	Stan Vickers (Great Britain) 1:34:56.4	
Rome, 1960—50 kilometers			
Don Thompson (Great Britain) 4:25:30.0	John Lunggren (Sweden) 4:25:47.0	Abdon Pamich (Italy) 4:27:55.4	
Tokyo, 1964—20 kilometers			
Ken Matthews (Great Britain) 1:29:34.0	Dieter Lindner (East Germany) 1:31:13.2	Vladimir Golubnichiy (USSR) 1:31:59.4	
Tokyo, 1964—50 kilometers			
Abdon Pamich (Italy) 4:11:12.4	Paul Nihill (Great Britain) 4:11:31.2	Ingvar Pettersson (Sweden) 4:14:17.4	
Mexico City, 1968—20 kilometers			
Vladimir Golubnichiy (USSR) 1:33:58.4	Jose Pedraza (Mexico) 1:34:00.0	Nikolay Smaga (USSR) 1:34:03.4	
Mexico City, 1968—50 kilometers			
Christoph Hohne (E Ger) 4:20:13.6	Antal Kiss (Hungary) 4:30:17.0	Larry Young (USA) 4:31:55.4	
Munich, 1972—20 kilometers			
Peter Frenkel (East Germany) 1:26:42.4	Vladimir Golubnichiy (USSR) 1:26:55.2	Hans-Georg Reimann (East Germany) 1:27:55.0	
Munich, 1972—50 kilometers			
Bernd Kannenberg (W Ger) 3:56:11.6	Venyamin Soldatenko (USSR) 3:58:24.0	Larry Young (USA) 4:00:46.0	

RACE WALKING RECORDS

Marks made through December 1974; world records are only recognized at 20, 30 and 50 kilometers, 20 and 30 miles, and two hours; Don DeNoon has walked 6:10.2 for the indoor mile (faster than the US indoor record) and Larry Young has done 100 miles indoors in 18:07:12.

WORLD

Event	Name (Nation, Year)	Mark
1500m—	Dave Romansky (US) '70	5:39.8
Mile—	Roger Mills (Great Britain) '74	6:09.0
3000m—	Paul Nihill (Great Britain) '72	11:51.2
2 miles—	Verner Hardmo (Sweden) '45	12:45.0
3 miles—	Paul Nihill (Great Britain) '72	20:14.2
5000m—	Paul Nihill (Great Britain) '72	20:14.2
5 miles—	Phil Embleton (Great Britain) '71	33:43.0
10 kms.—	Constantin Stan (Rumania) '73	41:29.2
7 miles—	Peter Frankel (East Germany) '72	47:49.0
One hour—	Bernd Kannenberg (W. Ger) '74	8m 1485y
15 kms.—	Constantin Stan (Rumania) '73	1:03:37.0
10 miles—	Peter Frenkel (East Germany) '72	1:08:25.2
20 kms.—	Bernd Kannenberg (W. Ger.) '74	1:24:45.0
15 miles—	Alexander Bilek (Czech.) '69	1:50:46.6
25 kms.—	Hans-Georg Reimann (E. Ger.) '72	1:51:09.8
2 hours—	Bernd Kannenberg (W. Ger.) '74	16m 1517y
30 kms.—	Bernd Kannenberg (W. Ger.) '74	2:12:58.0
20 miles—	Gerhard Weidner (W. Ger.) '74	2:30:38.6
35 kms.—	Gerhard Weidner (W. Ger.) '74	2:46:44.2
40 kms.—	Gerhard Weidner (W. Ger.) '73	3:11:07.0
25 miles—	Gerhard Weidner (W. Ger.) '73	3:12:14.8
30 miles—	Gerhard Weidner (W. Ger.) '73	3:51:48.6
50 kms.—	Gerhard Weidner (W. Ger.) '73	4:00:27.0
50 miles—	Shaul Ladany (Israel) '72	7:23:50.0
100 miles—	Hugh Nielson (Great Britain) '60	17:18:50.4

AMERICAN

Event	Name (Year)	Mark
1500m—	Dave Romansky '70	5:39.8
Mile—	Dave Romansky '70	6:10.4
3000m—	Dave Romansky '70	12:12.0



American record holders (l-r) Tom Dooley, Goetz Klopfer and Ron Laird. (Don Chadez photo)

2 miles—	Larry Walker '70	13:20.2
3 miles—	Ron Laird '67	21:03.8
5 kms.—	Larry Young '72	21:39.8
5 miles—	Ron Zinn '64	36:04.2
10 kms.—	Dave Romansky '70	43:03.8
7 miles—	Ron Laird '64	50:50.6
Hour—	Ron Laird '64	8m 420y
15 kms.—	Tom Dooley '71	1:07:11.8
10 miles—	Tom Dooley '71	1:12:12.0
20 kms.—	Larry Young '72	1:30:10.0
15 miles—	Goetz Klopfer '71	1:52:44.0
25 kms.—	Goetz Klopfer '71	1:56:53.0
2 hours—	Goetz Klopfer '71	15m 1578y
30 kms.—	Goetz Klopfer '70	2:33:50.0
20 miles—	Goetz Klopfer '70	2:33:59.0
35 kms.—	Bob Kitchen '71	2:47:34.0
40 kms.—	Bob Kitchen '72	3:20:00.0
25 miles—	Bob Kitchen '72	3:21:16.0
30 miles—	Bob Kitchen '72	4:04:35.0
50 kms.—	Bob Kitchen '72	4:13:36.0
50 miles—	John Kelly '66	8:47:47.0
100 miles—	Larry O'Neil '67	19:24:54.2

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