



PHOTOGRAPH BY JAY COLVER

# They're Your FEET

By

WILLIAM S. SADLER,  
M. D.

**I**F I were asked whether we abuse our stomachs or our feet the more, I would unhesitatingly say, "Our feet." And that isn't because we've two of them as against one stomach.

Fortunately, we have had a little sense knocked into our heads about overeating and wrong eating, but precious little regarding the feet and their care.

Just what percentage of the American people suffer more or less from aching feet, corns, calluses, bunions, fallen arches, and other foot troubles, it is hard to say, but I'd hazard a guess that it is around ninety per cent.

Many people think because the feet are "protected" by hose and shoes that the wear and tear on the skin is negligible. That is where they make their first big mistake.

The very fact that the feet are so thoroughly encased causes a high degree of breakdown of the skin. The ventilation is poor and there is a tendency to accumulate sweat and other excretions, which, if not frequently removed, are very detrimental to the health of the skin.

Cleanliness, therefore, is of prime importance in foot hygiene. Nevertheless, I do not advocate the daily use of very hot foot baths. Tepid water and a mild toilet soap are all that the feet require under normal conditions; abnormal conditions I shall speak about later on.

Cleanliness, however, isn't going to be of much avail if you put your feet into ill-fitting shoes and stockings.

It is surprising how many people will go to a great deal of trouble to get a well-fitting shoe and then will wear it over badly fitting hose.

Socks and stockings that wrinkle cause blisters and abrasions, while those that are too tight or too short pull the toes out of normal alignment.

Heavy woolen stockings are a good clothing for the feet if you are going to be out of doors in a low temperature for a considerable time, while for ordinary winter wear two pairs of cotton or lisle hose, or one pair of cotton worn under silk is to be preferred. But should you happen to be one of those mortals who suffer from cold feet, wear a mixture of silk and wool.

I advise this course because I have found heavy woolen hosiery to be a prolific cause of foot sweating—and that is something, as I shall explain later, that we should avoid.



PHOTO FROM COLVER STUDIO

The funniest feet in the world.  
Yes, that's right, they're Charlie's

And, in passing, let me suggest a change of hose every day. This is both for the sake of hygiene and the sake of the hosiery, which will wear much longer if frequently changed.

When I pass shoe stores, with their array of shoes with narrow, pointed toes and stilted heels, I wonder whether we shall ever learn shoe sense.

How can we expect such a complicated structure as the foot, with its twenty-six bones, with all its ligaments, cartilages, nerves, to be happy and well in the wrongly fitting shoes that most of us wear? And women aren't the only offenders in this respect. I had hoped that when the war was over and three or four million men were returned to civil life who had received army instruction concerning the care of the feet and properly fitting shoes—made on the "Munson last"—we should

see a nation-wide shoe reform. But evidently fashion is stronger than reform.

The natural foot toes in a bit when walking. Who ever heard of a slew-footed long distance runner? But the majority of the shoes worn are entirely too narrow at the ends to permit of the free function of the toes in either walking or running; thus, after years of misuse, we get foot strain, fallen arches, bunions, and misshapen feet that cause no end of misery and pain.

The proper shoe should have a sole as broad as the *expanded* weight-bearing foot. If the sides of the shoe check this free expansion, the big toe is gradually forced over and upward.

When the big toe is free to press squarely on the ground, it helps to support the arch. When its function is restricted by a too narrow shoe, the muscles of the foot are hampered, the ligaments weakened, and we have arch trouble and other complaints.

Another error that people make when buying shoes is to get them too short, so that when they walk their toes touch the end of the shoe.

**T**HE overly high heels on many women's shoes are very harmful; they not only throw the foot forward, causing a cramped, unnatural walk, but they strain the muscles of the whole leg. However, I do not advise women who have worn high heels most of their lives to change suddenly to very low heels. Low heels, to a person unaccustomed to them, also put the foot under a strain. The reduction of the height of the heel should be a very gradual process.

Of course, in a genuine health shoe the heel should be but a trifle thicker than the sole, and then only to provide for a little



The four toothpick toes to the left of the picture were fashionable in 1897. The slipper at the top and the two high shoes at the right are what we liked in 1918



PHOTOGRAPH BY JAY OLIVER

# but Stop Abusing Them

more wear. But as few women can or will wear flat-heeled shoes, it is left for me to recommend that they avoid the ridiculously stilted heel and see that their shoes are wide enough to admit of free expansion of the foot and that the heels are of a medium height and proper width.

I have found that sometimes the wearing of two or three different kinds of shoes gives relief by distributing the foot strain, but in general the best plan is to find out the style of shoe that gives you the greatest walking comfort and stick to it. Moreover, if your pocketbook will stand for it, buy two or three pairs at one time and change them every day. It is better economy in the end, as shoes last a great deal longer if they are allowed frequently to air out.

**T**HE commonest minor ailments which afflict the feet are, first, corns and calluses, and then blisters, abrasions, bunions, and ingrowing toe-nails.

Corns are simply localized and irritated callosities due to long-continued pressure from ill-fitting shoes. Naturally, the first thing to do is to remove the cause—get a pair of properly fitted shoes—those that are neither too tight nor too loose.

The old-fashioned way of trimming corns with a razor blade is simply palliative and is accompanied with danger of infection.

A better way to attack small corns is the following process: Apply tightly over the affected area a piece of adhesive plaster, which should be worn for one

week. At the end of this time the corn is usually so soft that it may be removed with little difficulty. After the removal of the corn the area should be painted either with tincture of iodine or mercurochrome.

Larger corns and callosities usually require the use of some stronger agent in the form of a salve or paste, such as:

Salicylic acid . . . . .	40 parts
Vaseline . . . . .	30 parts
Lanolin . . . . .	30 parts

This ointment is smeared immediately over the corn, which is then covered with a strip of zinc oxide plaster. Every night wash the foot with soap and warm water and re-apply the ointment (Continued on page 142)



PHOTO BY ERING GALLERAY

Filipino women wear no shoes, and are therefore said to have perfect feet. Well, it's all a matter of taste. (Left) A pair of classic feet



COURTESY METROPOLITAN MUSEUM OF ART



An assortment of shoes. It's a wonder the world's feet are as good as they are

and plaster. As a general rule, it requires four or five applications to soften the corn sufficiently so that it may be removed without trouble. Finish the operation by painting with tincture of iodine or mercurochrome.

However, if the corn is very large or high, it is best to remove the upper two-thirds with a sterile knife before applying the salve and adhesive, taking care not to draw blood, and follow the directions above.

Large calluses on the soles of the feet and stone bruises are usually due to bulging of the soles of the shoes or to wearing shoes with too thin soles. They should be treated after the same general method as advised for corns.

To relieve the stinging which sometimes accompanies these newly formed callosities, soak the feet at night in hot, soapy water. Sometimes, after a half hour's foot bath of this sort, the callus can be largely removed by rubbing with a damp, very rough Turkish towel. Dash a little cold water upon the feet, dry carefully, and anoint with cocoa butter.

Blisters and abrasions usually result from wearing shoes that are too large or stockings that wrinkle. Sometimes it is a wrinkle in the lining of the shoe itself that causes the trouble.

The best way to treat a blister is to sterilize a needle, and after pricking it at the edge, very gently press out the serous content. Under no circumstances should the loose skin over the blister be removed. Paint the area over with either tincture of iodine or mercurochrome, and allow it to dry. Then cover with adhesive tape applied over a layer of gauze or cotton. The gauze is important; otherwise, ulceration may occur if the adhesive tape is left on very long.

Abrasions are simply blisters from which the outer covering of skin has been removed or torn off. These tender surfaces are very painful when exposed to air or when irritated by the material of the stocking or the sock. Treat them as you would a blister after its serous content has been squeezed out. If the abrasion is very large or if it seems to be infected, go to the doctor.

**T**HE care of the nails is an important feature of foot hygiene. There is an art in the trimming of nails, especially of the big toe, to prevent tendency to ingrowing. This inward curve of the nail going down into the flesh produces a very painful condition and it sometimes becomes infected and constitutes a serious menace. Socks or stockings that are too small are one of the causes of this condition, not to mention too narrow and improperly fitting shoes. But, aside from wearing properly fitting stockings and shoes, a simple way to prevent ingrowing nails is to trim them squarely across. Do not cut the nail of the big toe as you might those on the other toes, in a circular fashion, but allow the sides to remain on a level with the center of the nail, which is pared down to the flesh.

In mild cases of ingrowing nail, infection can sometimes be prevented by gently

aising the corner of the nail and inserting a small pledget of cotton. The cotton should be changed at least once or twice a day and the nail will thus be gradually forced away from the flesh. In the more severe cases of ingrowing nail, surgical treatment is required.

If you have a painful or tender spot where the big toe joins on to the foot, or, to be technical, where the metatarsal joint of the great toe is located, watch out for trouble. A bunion may be on its way.

You have probably been wearing shoes that have crowded the big toe and caused the metatarsal joint to be pushed outward at a sharp angle; as a consequence the synovial sac, which is situated over the metatarsal joint, is enlarging.

**T**HE first thing to do is immediately to remove all pressure and look to your shoes.

You may be able gradually to pull you toe into place again by the use of adhesive plaster and by wearing wool pledgets between the first two toes. But if the joint has begun to get badly deformed, consult a doctor, as there is danger from pus formation and ulceration.

Sometimes bunions result, not from pressure but from a hereditary conformation of the foot, in which case a surgical operation is the only cure.

The next two common foot ailments, which are in a measure linked together, are excessive foot sweating and poor circulation.

There are two general plans of treatment for excessive sweating. The first is to tone up the circulation of the feet by taking the alternate hot and cold foot bath each evening. The feet should be put into piping-hot water for from two to three minutes and then taken out and put into ice water for eight to ten seconds. This should be kept up for from fifteen minutes to half an hour, making anywhere from half a dozen to a dozen changes between the hot water and the ice water.

Finish the treatment by drying the feet when they are taken out of the cold water and dusting them with the following powder:

Salicylic acid.....	3 parts
Powdered starch.....	10 parts
Powdered talcum.....	87 parts

Another remedy is the potassium permanganate treatment. First wash the feet thoroughly with soap and warm water, great care being taken to see that all the soap is removed by rinsing them with clear water. They are then soaked for about twenty minutes in a saturated solution of potassium permanganate in hot water. This permanganate solution is allowed to dry on the feet. Carry out this treatment for three successive nights. After the first night the feet are not again washed with soap and water, but are put directly into the permanganate solution, which each time is allowed to dry on.

Liberal use the foot powder already suggested, applying it not only to the feet but to the inside of the socks, and be sure to get plenty of powder between the toes.

This treatment, especially if it has been preceded by a course of tonic alternate hot and cold foot baths, usually checks excessive perspiration. The permanganate will stain the feet a deep mahogany color, but this is harmless and will soon wear off.

Another good tonic treatment for poor circulation is the salt glow. Take some cool water and some coarse salt (not the rock salt used for making ice cream, but just coarse salt, such as is used in taking a salt bath) and thoroughly massage the feet with this moistened salt, rinsing off with cold water. Dry carefully and rub in cocoa butter.

Sometimes circulation in the feet is interfered with to the point where the ends of the toes are threatened with tissue death, gangrene. This condition is called Reynaud's disease, and its treatment should always be directed by a physician.

If you should happen to suffer from cold hands and feet, this does not necessarily mean that your whole systemic circulation is poor. I am constantly meeting people who have cold hands and feet, but who otherwise have a good circulation and normal blood pressure and enjoy the best of health. They are simply born that way. If people with this hereditary tendency are reasonably careful in keeping the feet dry and warm and do not go to the extreme of over-clothing the feet, no serious harm comes from this sluggish circulation.

While on the subject of cold feet we may as well take in that distressing complaint—chilblains.

Chilblains, as you probably know, are a mild form of frostbite. If you have frozen your feet, do not put them immediately into hot water, but warm them up first by massaging either with snow or cold water. They can then be bathed in warm water and rubbed with menthol ointment.

If, however, the chilblains have reached the ulcerated stage, a safe and effective remedy is Balsam of Peru—20 per cent—in a base of cocoa butter. Sometimes, however, when chilblains reach a very badly ulcerated stage, they need surgical care, as it is frequently necessary to remove all tissue of lowered vitality and either allow this surface to scar over or to replace the lost skin by means of skin graft.

**P**EOPLE who are engaged in heavy work, particularly in hot places, often suffer from cracks and fissures between the toes and on the soles of the feet. These can be treated in their earlier stages by careful washing, drying, and cleansing with alcohol. This must be unadulterated alcohol; that is, grain alcohol that has not been denatured. Then dust with foot powder. Borated talc is good for this purpose. Cracks and fissures should be covered with adhesive tape, after first being protected by a little gauze or cotton.

When fissures have become very deep, you should go to the doctor.

Flat foot is more common among women than men and this is probably due to the fact that weak arches are not merely a foot condition, but they also result primarily from a general weakened condition of the leg muscles that have to do with arch support. The more vigorous exercise of boys as they grow up as compared to that of girls no doubt serves greatly to protect them from this tendency to flat foot later on in life. Moreover, boys' shoes conform much better to the shape of their feet.

Weak feet sooner or later come to be flat feet. Another reason why women suffer more from flat feet is because they toe out more both in walking and standing, and this places a great strain upon the arches of the feet. The persistent practice of toeing in, standing and walking Indian fashion, and the daily exercise of the leg muscles, rising on the toes twenty to forty times, night and morning, will do much to prevent flat foot. The following exercise is also valuable for preventing and correcting this troublesome condition:

*Exercise for flat foot.* Draw two parallel chalk lines about three fourths the length of one foot apart, and practice walking on them until the habit of toeing straight is acquired. Correct posture is like the military attitude of "at rest"—heels apart, toes straight forward, the sides of the feet forming two sides of a square. This attitude gives stability and poise and insures a proper distribution of the weight of the body upon the feet.

Those who stand a great deal should avoid distorted positions, as resting the weight on the sides of the feet, or on one foot with the body sagging to one side. The body weight should be kept evenly supported on both feet.

**TO DETECT** weak feet, note whether you have a tendency to toe out when walking, a bending inward of the ankles when standing, or a disposition to walk on the inner side of the feet, as shown by the uneven wearing of the shoe. This condition may be present with a high instep and no evidence of flat foot. As flat foot develops, the inward bend of the ankle is easily apparent. The inner hollow disappears and the entire sole rests flat upon the ground when the shoes are removed.

The earlier in life this condition of weak feet is detected the better for the individual. After middle life a cure—especially in heavy people—may be difficult, or impossible, if the arches are completely broken down. In young people, a cure can almost invariably be effected.

The prevention of flat foot consists largely in affording due exercise to the leg and foot muscles and tendons by plenty of walking, especially in childhood, and on rough ground. Flat pavements are indirectly one cause of flat foot.

The following additional exercises are also valuable in an effort to strengthen the arches and prevent or cure flat foot tendency:

1. Stand on a wooden stool about one and a half feet from the wall, supporting yourself with your hands against the wall, with the right foot, except the heel, extended off the stool. Now stretch the foot downward as far as you can, counting five. Then flex the foot upward as far as possible, counting five, always keeping the heel on the stool. Repeat from ten to twenty times. Repeat with left foot.

2. Sit on a stool and place your right leg on a chair, the ankle and foot extended off the chair. Grasp the leg half way between the ankle and the knee, and, while stretching the toes, rotate the foot vigorously from five to ten times in each direction. Repeat with the left leg.

The arches of the feet can also be greatly strengthened by wearing moccasins or sandals, which, while protecting the soles of the feet, afford every opportunity for a free play of all muscles and tendons.

With regard to arch supports, I suggest that the sufferer from flat feet consult a competent podiatrist before using them.

There are many good arch supports and health shoes on the market, but there are also a number of so-called health shoes and arch appliances brought out by commercial exploiters, whose products do more harm than good. Your feet are too valuable to fool with—that is why I advise anyone suffering from *serious* foot trouble to consult a reputable podiatrist. He will suggest the support and last best suited to your feet.

Another good course for the foot sufferer is to have his feet X-rayed. Sometimes foot strain is caused by bone spurs which will continue to make trouble until surgically removed.

We have come to realize that most of our ailments result from over-civilized living habits and would vanish if we spent more time tramping in the woods and along country roads. But if we are to enjoy such hikes, the feet should be in good condition and suitably clad. Also, before starting on a long walk, one should make sure that there are no protruding nails inside the shoes or wrinkles in the lining.

A middle-weight cotton sock I consider even better than the half-wool, half-cotton sock that some prefer for hiking. It should be a comfortable fit, neither so large that folds will be formed and cause blisters or abrasions, nor so tight that the feet are crowded and holes result; for holes and darns in the sock will also cause blisters.

Those who have tender feet might well follow the example of our soldiers during the war and grease their socks on their feet, before a long hike, with vaseline or candle grease.

Another help in walking over rough country or on smooth, short grass will be six or eight hobnails driven into the soles of the shoes and four or five in the heels. The so-called Hungarian hobnail, with a steel head, is the best, and those for the heels should be smaller than those for the soles. Hobnails will give a better foothold and save wear on the shoe, but will interfere with the grip of the foot on the ground if put on too thickly.

Hikers must sometimes dry out their shoes quickly, and an effective way to do this is to heat clean pebbles over the camp fire and then shake them about inside the shoes until the inner moisture has been driven off as vapor. Hot, dry cloths stuffed into the shoes will also soon absorb moisture. For overnight drying, wet shoes may be packed with dry oats. These will absorb the moisture and prevent the leather from shrinking.

**H**EALTH and happiness are, in a great measure, bound up with foot ease. It's a "grand and glorious feeling" to be able to go on a ten- or fifteen-mile hike and not know that you have feet when you return. As it is, far too many of us are painfully aware of their existence after getting through merely an ordinary day's work.

And it *should* not and *need* not be.

Give your feet a chance to function naturally by clothing them properly.

Loosen up their circulation by tonic baths.

Keep them free of corns and calluses.

Do the foot exercises regularly.

Even if you are not suffering from flat feet or fallen arches your feet will benefit from these barefooted exercises and you will walk better as a result.

