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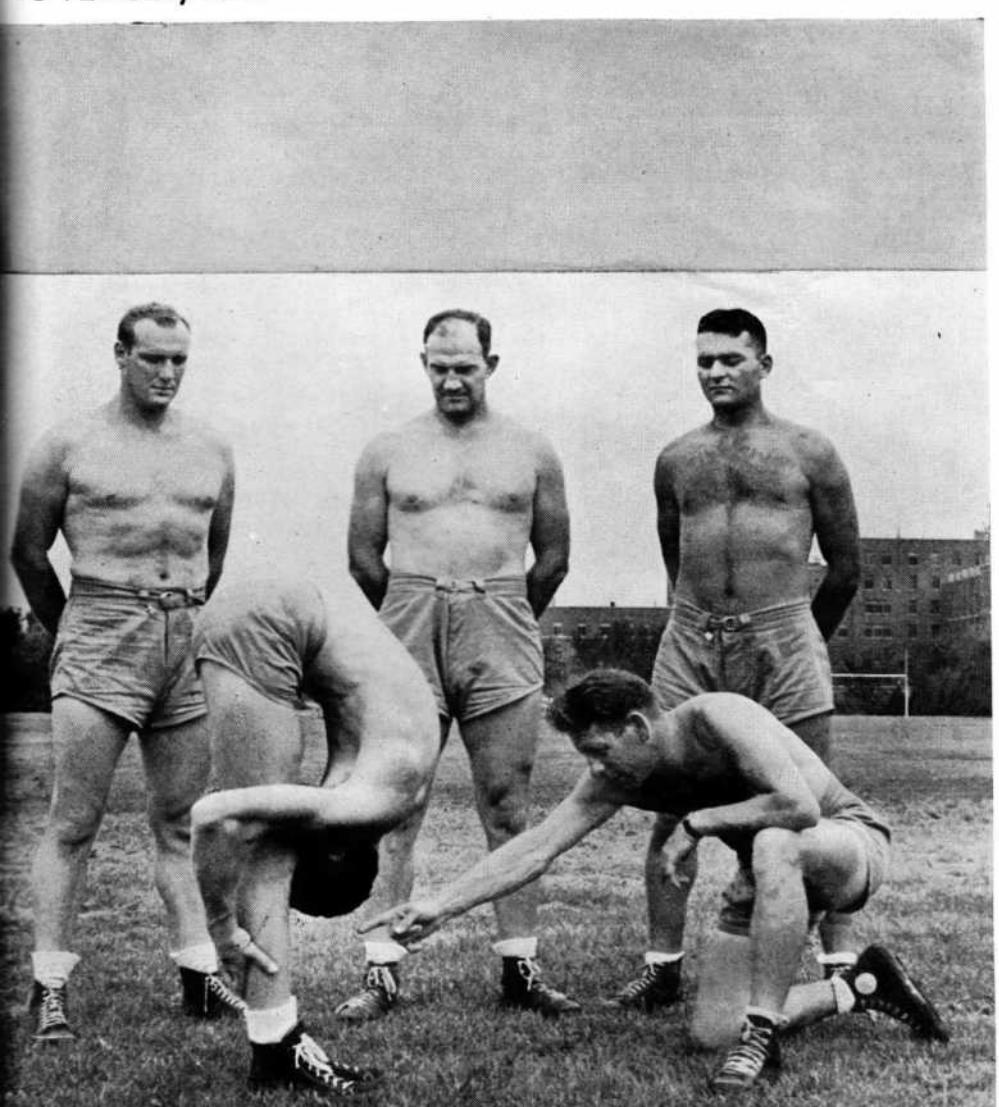

Official Publication
Of the National Athletic
Trainers Association

Mass Exercise
Lieutenant M. J. Gary

What Causes Athlete's
Foot?
Stanley Benton

Cadet Larry Colgrove in a downward bend position. Standing left to right, Ensign Charles Ream, Lieutenant Mike Gary, Lieutenant (j.g.) Tom Bukvich; kneeling, Lieutenant (j.g.) Fred Stalcup. These four officers direct the mass exercises at the United States Navy Pre-Flight School, Iowa City, Iowa.

Mass Exercise

By Lieutenant M. J. Gary, U.S.N.R.
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United States Navy Pre-flight School, Iowa City, Iowa
Former Football Coach, Western Michigan College

IN the October issue, a description of the Mass Exercises used at the United States Navy Pre-Flight School for Naval Aviation Cadets at Iowa City, Iowa, was begun. The objectives were listed. General precautions in the direction of the exercises were presented. A method of assembling and spacing the cadets for Mass Exercise was described. The scheme for nomenclature was given. The five fundamental or basic positions were illustrated. As examples, three exercises were shown in Illustrations 1, 2, and 3, and the commands involved in these three exercises were listed.

In this issue, additional exercises from the basic position of *Attention*, as shown in Illustration A of the previous issue, are described and illustrated. The commands are listed in a suggested sequence.

As explained in the October issue, some of the positions primarily emphasize proper posture, but a majority of the exercises stretch large muscle groups. They must be executed all-the-way to attain the proper result. The simpler positions or exercises are listed first, with a gradual approach toward the more strenuous exercises. Positions such as *Neck, Rest* and *Hips, Firm* should be assumed with snap and precision, but stretching exercises such as *Trunk backward, Bend* should be executed more slowly so that the muscles involved may be stretched gradually. The stretching exercises, as a rule, should not be executed on a rapid count, if we expect to achieve our objective, especially if the participant is not thoroughly warmed up. The muscles should be pulled, not jerked. If a good workout is desired, the rhythm may be stepped up after the stretching and warm-up has been accomplished.

So that the continuity will not be broken, illustrations of the basic position of *Attention* (Illustration A) and the three exercises (Illustrations 1, 2 and 3) are repeated from the October issue.

Additional copies of these well-illustrated exercises may be secured. (Editor's Note.)

Exercise 1: Emphasize erect position of the head and trunk, chin in, elbows well back. In most of the arm exercises which follow, the fingers should not be spread, but should be kept together with the thumb along the forefinger in a military manner.

Exercise 2: The elbows downward and backward with fingertips resting lightly on the tops of the shoulders.

Exercise 3: Elbows well back, palms downward and fingers extended with the forefinger at the level of the nipples.

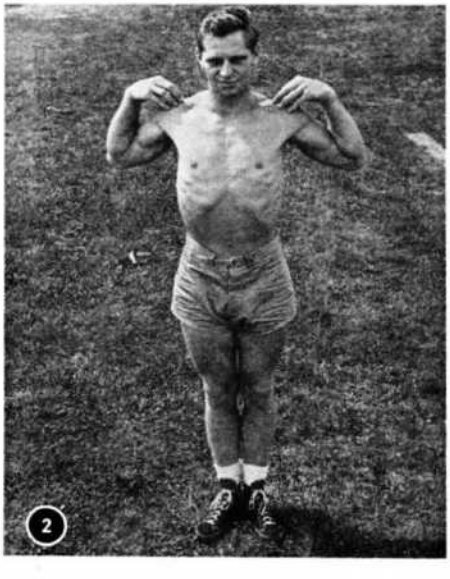
Exercise 4: From the position *Neck, Rest* (1), the head, or more properly, the neck is twisted first to the left and then to the right. The neck is not bent to either side, but the head is merely pivoted on the shoulders with the chin in and the head erect throughout the exercise.

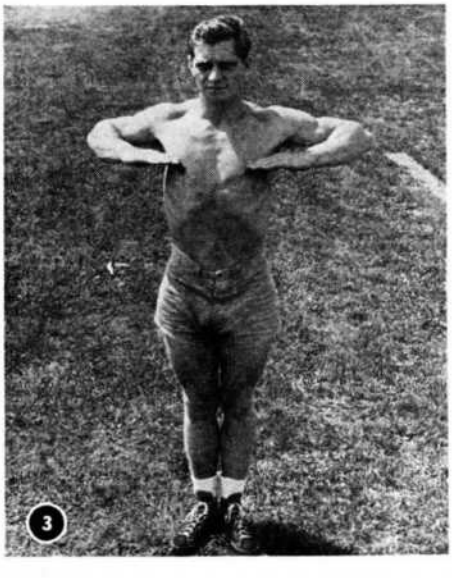
Exercise 5: From the position *Neck, Rest* (1), the chin is held in and the head forced backward as far as possible.

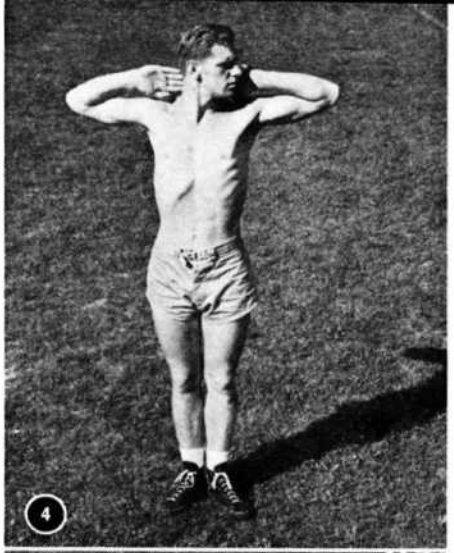
Exercise 6: From the position *Neck, Rest* (1), the head is thrown forward as far as possible with the shoulders and trunk held erect and the elbows well back.

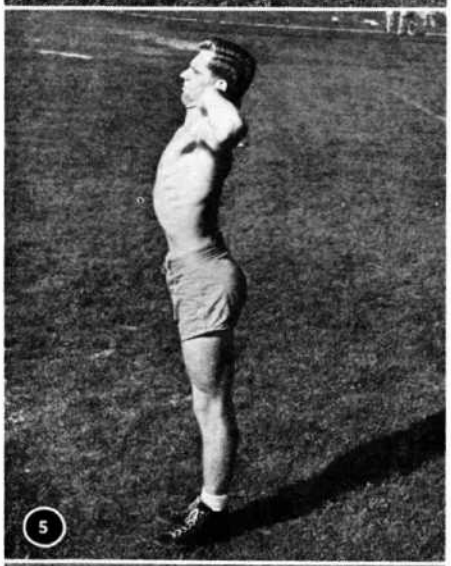
Exercise 7: From the position *Arms, Bend* (2), the arms are stretched upward

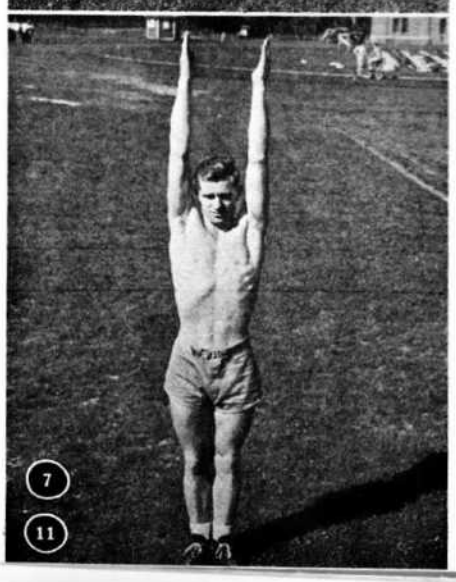
THE accompanying article by M. J. Gary, Lieutenant U.S.N.R. on Mass Exercise, as given at the U. S. Navy Pre-Flight School, Iowa City, Iowa, is presented in the Trainers' Section because that activity in the Pre-Flight program is conceived primarily as a conditioning activity, prefatory to other sports activities, and therefore, a concern of the trainer. The October issue presented an over-all picture of the Mass Exercise program pointing to the objectives. This article gives attention to muscle-stretching and other conditioning measures inherent in the activity. The subject for the pictures is Aviation Cadet, Lawrence E. Colgrove of Birmingham, Michigan, who has completed his pre-flight training at the Iowa City School and has advanced to a naval air base.











so that they are vertical and parallel, with the palms inward. A caution that the arms be forced backward as far as possible is usually necessary.

Exercise 8: From the position *Arms forward, Bend* (3), the elbows are extended with the arms thrown sideways in a striking movement. The palms of the hands remain downward with the fingers extended.

Exercise 9: From the position Attention (A), the arms are swung smartly forward at right angles to the trunk, arms parallel with palms inward.

Exercise 10: From the position Attention (A), the arms are swung backward as far as possible, the body remaining in an erect position. We find that we continually must caution the participant not to bend the trunk forward as the arms are swung backward.

Exercise 11: From the position Attention (A), the arms are swung forward and upward, the final position being identical with arms upward stretch.

Exercise 12: From the position Attention (A), the arms are swung sideways, the final position being identical with arms sideways striking. Exercises 9, 10, 11, and 12 may be executed in various sequences to keep the participant alert. Also, in Exercises 3 and 9, the cautionary command is identical so that the participant does not know which exercise is desired until the command *Bend* or *Swing* is given.

Exercise 13: From the position Attention (A), the left foot is placed directly sideways a distance of approximately twenty-four inches, depending on the length of the participants' legs. This exer-

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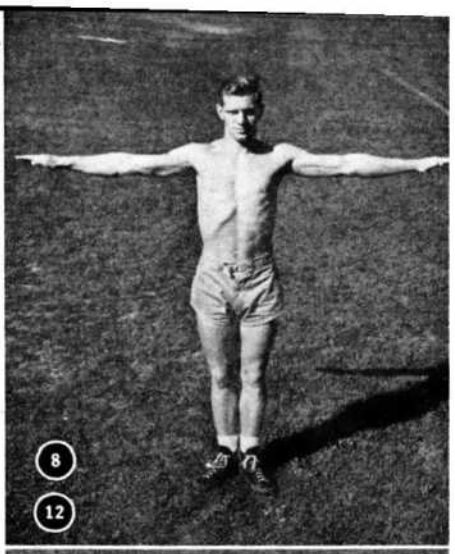
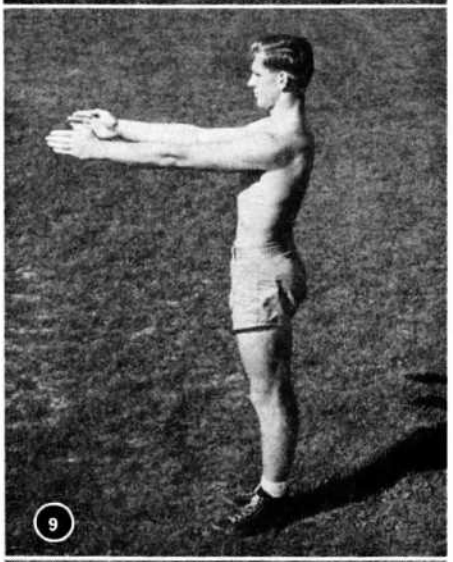
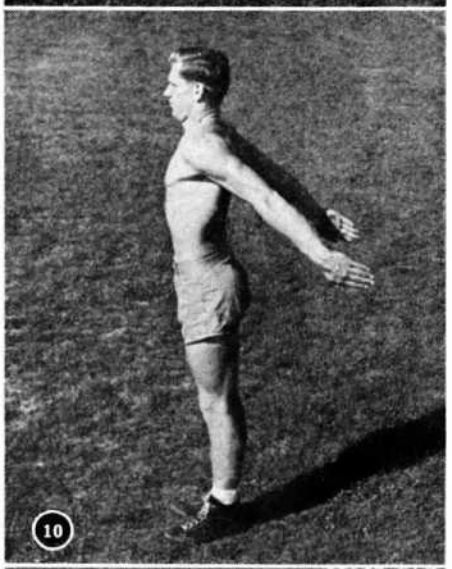
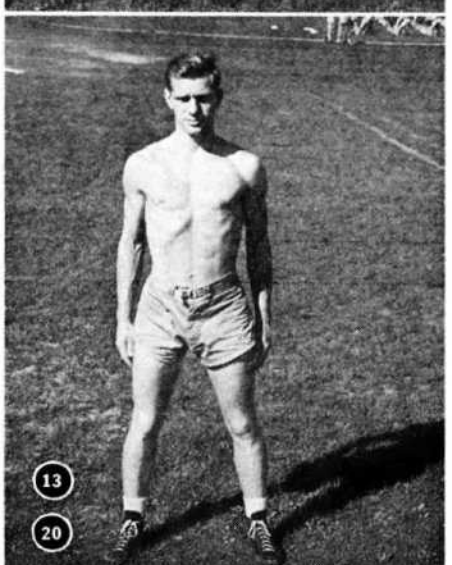
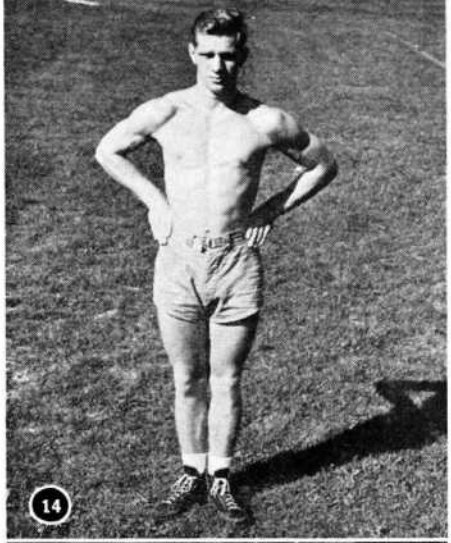
1. (From A) Neck		
Rest	Arms downward	*Stretch*
2. (From A) Arms		
Bend	Arms downward	*Stretch*
3. (From A) Arms forward		
Bend	Arms downward	*Stretch*
4. (From 1) Head to the left (or right)		
Twist	Head forward	*Twist*
5. (From 1) Head backward		
Bend	Head forward	*Stretch*
6. (From 1) Head forward		
Bend	Head upward	*Stretch*
7. (From 2) Arms upward		
Stretch	Arms	*Bend*
8. (From 3) Arms sideways		
Strike	Arms forward	*Bend*
9. (From A) Arms forward		
Swing	Arms downward	*Swing*
10. (From A) Arms backward		
Swing	Arms downward	*Swing*
11. (From A) Arms forward and upward (See illustration 7)		
Swing	Arms forward and downward	*Swing*
12. (From A) Arms sideways (See Illustration 8)		
Swing	Arms downward	*Swing*
13. (From A) Left (right) foot sideways		
Place	Feet together	*Place*

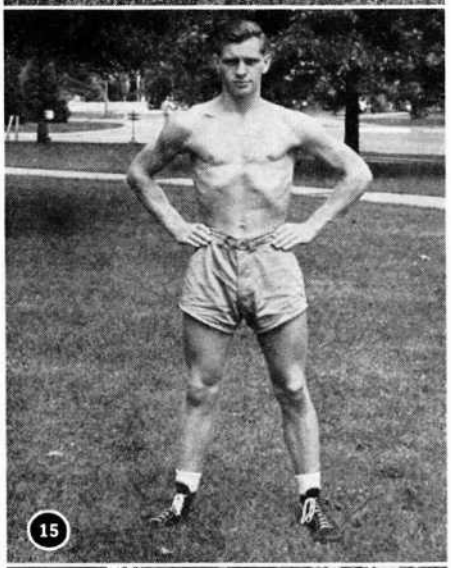


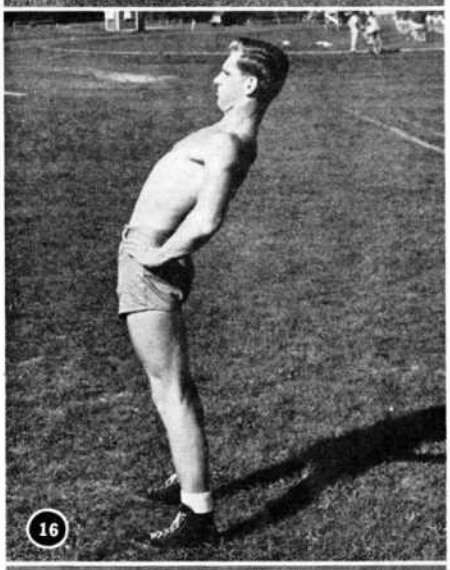


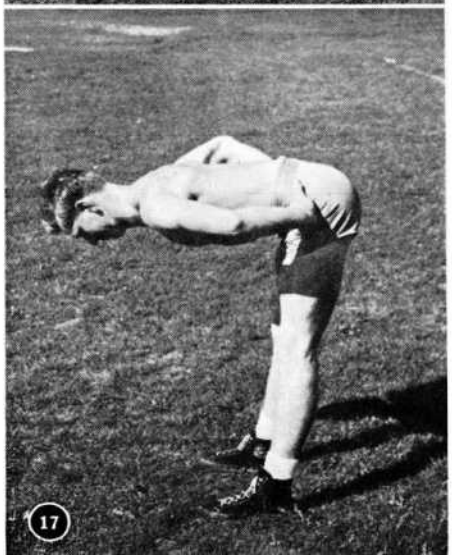












cise is seldom given without combining it with some movement of the arms, such as *Hips firm, or Arms sideways, Swing.* It is given as a separate exercise in this outline in order to maintain continuity in the description of basic positions.

Exercise 14: From the position Attention (A), the hands are placed against the side of the trunk directly above the hips with the fingers pointing forward and the thumbs aft, and the pelvic girdle is then rotated forward and upward along with pressure downward by the hands.

Exercise 15: This exercise is a combination of Exercises 13 and 14. As the hands and arms and hips are brought into a position of hips firm, the left foot is placed sideways.

Exercise 16: From Position 15, the trunk is bent backward as far as possible

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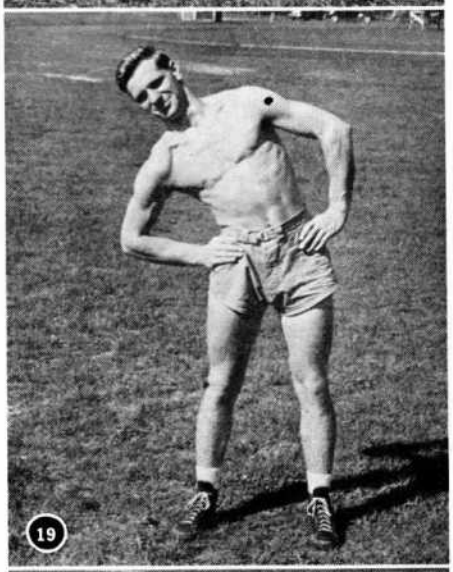
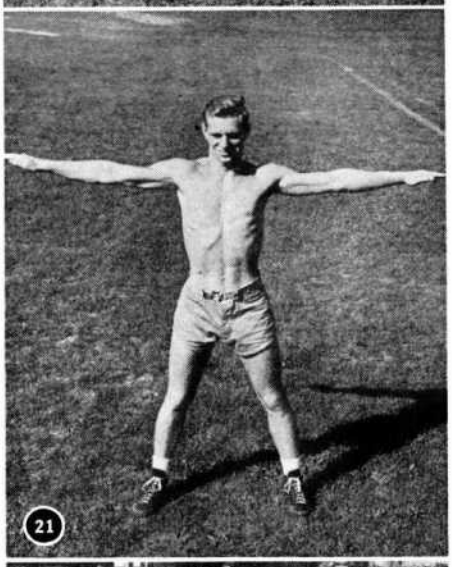
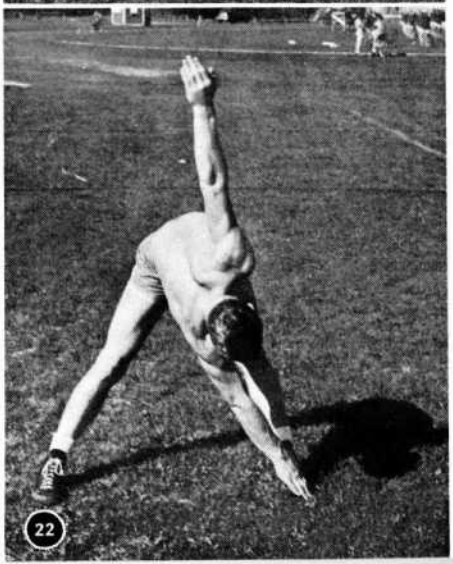
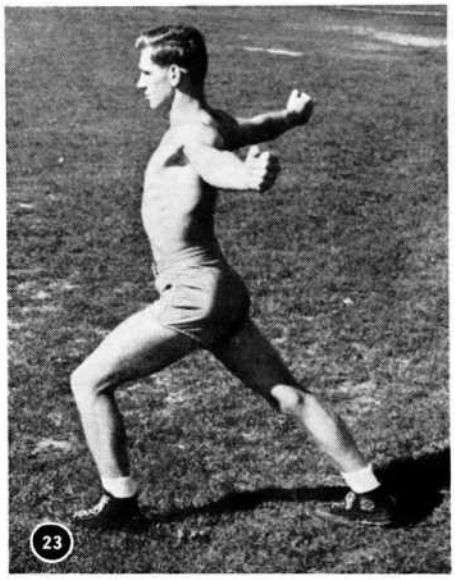
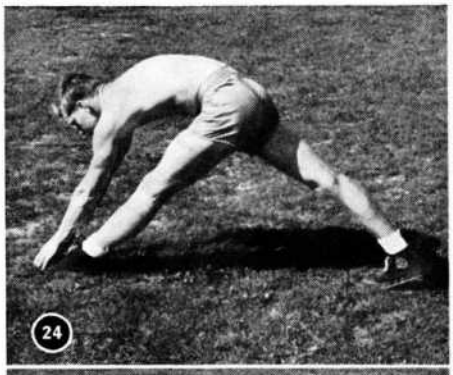
14. (From A) Hips		
Firm	Arms downward	*Stretch*
15. (From A) Left (right) foot sideways placing, hips		
Firm	Feet together, arms downward	*Stretch*
16. (From 15) Trunk backward		
Bend	Trunk upward	*Stretch*
17. (From 15) Trunk forward		
Bend	Trunk upward	*Stretch*
18. (From 15) Trunk forward and downward		
Bend	Trunk upward	*Stretch*
19. (From 15) Trunk to the right (left)		
Bend	Trunk upward	*Stretch*
20. (From A) Feet parting with a jump (See Illustration 13)		
Place	Feet together with a jump	*Place*
21. (From A) Feet parting with a jump, arms sideways		
Swing	Feet together with a jump, arms downward	*Swing*
22. (From 21) Trunk twisting, right hand to left foot (alternating)		
Place	Trunk upward stretching, arms sideways	*Swing*
23. (From 9) Left (right) foot forward lunging, with fists closing arms sideways		
Swing	Attention	*Shun*
24. (From 11) Left (right) foot forward, arms swinging forward with fingers touching toes, trunk forward		
Bend	Attention	*Shun*
25. (From 24) Trunk upward stretching, arms sideways		
Swing	Trunk forward bending, hands on toes	*Place*
26. (From 21) Left (right) knee		
Bend	Left (right) knee	*Stretch*
27. (From 14) Knees		
Bend	Knees	*Stretch*
28. (From A) Parade		
Rest	Attention	*Shun*

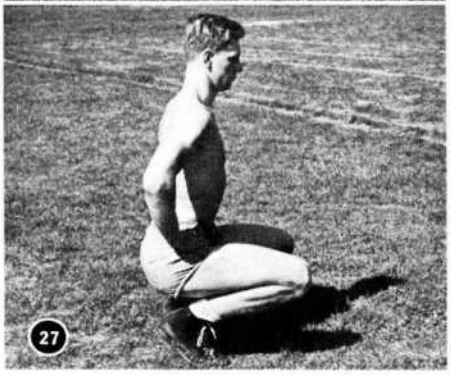












All pictures are "Official U. S. Navy Pictures."

with chin in and head in line with the trunk. The hips remain fixed in the initial position. We find the movement is best executed if we suggest that the cadet elevate his chest and pull in the abdominal wall before bending the trunk backward. The knees must not be flexed, but maintained in an extended position.

Exercise 17: From Position 15: the hips are flexed, maintaining the alignment of the head and trunk with the knees straight. The flexion is accomplished at the hips rather than in the lumbar region of the trunk.

Exercise 18: From Position 15, the hips are flexed and all possible flexion of the trunk is added to the flexion of the hips, so that the trunk is forced downward against the anterior surface of the thighs. The flexion should be gradual without bobbing the trunk up and down and the position should be maintained for a few seconds to stretch the extensor muscles of the trunk and the "hamstrings" in the thigh.

Exercise 19: From Position 15, with the hips in a fixed position and with no movement of the hips to the opposite side, the trunk is bent sideways at the waist as far as possible.

Exercise 20: From the position Attention (A), both feet are moved simultaneously sideways with a jump, usually about thirty inches apart, depending on the length of the legs. (See Illustration 13). As in the position of *Left foot sideways, Place*, this movement is seldom executed without combining it with some movement of the arms, such as *Arms sideways, Swing*.

Exercise 21: From the position Attention (A), a combination of Exercises 12 and 20 is executed, the feet parting and the arms swinging sideways simultaneously.

Exercise 22: From Position 21, the trunk is twisted to the left and downward with the right arm swinging forward and downward, fingers touching the toes of the left foot, with the left arm raised to a vertical position. As nearly as possible the shoulders and two arms should form a straight vertical line. The movement is executed more by twisting the trunk than by swinging the right arm forward and the left arm backward. The knees should be kept extended. This movement is more easily executed on a count of four, right hand to left foot on 1, return to starting position on 2, left hand to right foot on 3, return to starting position on 4. The counts should be spaced sufficiently to permit the cadet to assume the correct position on each count, otherwise it merely becomes a swinging exercise rather than the assumption of definite positions. If a count is used, the cautionary command should be *"Trunk twisting, right hand to left foot alternating,"* followed by the executive commands 1, 2, 3, 4.

Exercise 23: From Position 9, the left foot is placed well forward with a lunge, the left knee flexed, and simultaneously the fists are closed and the arms are swung sideways and backward with the chest thrown well upward. The head is held erectly with the chin in.

Exercise 24: From Position 11, a long stride forward is taken with the left foot, the trunk is bent forward and at the same time the arms are swung forward so that the fingers touch the toes.

Exercise 25: From Position 24, the trunk is stretched to an erect position with the arms swinging sideways. The left knee is flexed and the hips are lowered slightly from the level of Position 24.

Exercise 26: From Position 21, the left knee is flexed. The opposite knee remains fully extended. The left buttock rests on the left heel. The trunk is maintained in an erect position with arms remaining sideways in a horizontal position.

Exercise 27: From Position 14, the heels are raised from the deck and the knees are flexed with the buttocks resting on the heels. The trunk is maintained in an erect position. If a count is used *Heels Raise* on 1, *Knees Bend* on 2, *Knees Stretch* on 3, *Heels Sink* on 4.

Exercise 28: From the position Attention (A), the military position of Parade Rest is assumed. Participants may be placed in this position while director is explaining and demonstrating an exercise. The participants should be brought to a position of Attention before resuming exercises.

In the next issue additional exercises from the basic positions of Crouch Sitting and Stoop Falling will be explained and illustrated.

What Causes Athlete's Foot?

By Stanley Benton

BECAUSE the skin infection popularly known as athlete's foot is so prevalent, and because it is caused by microorganisms scientifically classified as *fungi*, that word has come into common usage. In connection with the control of athlete's foot, folks talk of *fungi* and *fungicides* (agents which kill fungi), yet few laymen understand the fundamental character of these forms of life.

What are fungi? They are plants—belong to a group which includes the molds, mildews, yeasts, rusts, smuts, mushrooms and toadstools. Fungi range in size from single cells visible only under the microscope to highly organized mushrooms which are often of considerable size and extent. They do not contain chlorophyll, the green matter which enables other plants to make their own food. Consequently, fungi are of necessity *parasites*, getting their food from other living things —or *saprophytes*, getting their food from dead things.

The microscopic species of fungi are found everywhere. Some, like the molds you find on bread when it is stale, are harmless. Some are useful—certain yeasts, for example. Many are harmful, being responsible for diseases that afflict humans, other animals and plants.

Usually, the fungi which cause disease in humans are highly resistant to unfavorable conditions, such as heat, cold and dryness; they are hard to destroy—especially when deeply imbedded in the human skin, where they are not readily reached. If conditions become very unfavorable, the hardy spores they form, somewhat comparable with seeds of higher plants, may remain dormant for long periods. With very little encouragement, the spores may again become active.

There is a number of related but different species of fungi which cause athlete's foot. At least twelve are common. Some are hardier than others. In any school, factory, club or institution, many or all of these species of fungi may be present.

When such fungi are transmitted via shower room, locker room or swimming pool floors, athlete's foot usually spreads. Susceptibility varies. John Doe may have a mild case, but when he passes it on to Jim Roe, the symptoms may be much more severe—in fact, Jim Roe may even be prostrated.

As a rule, a neglected case of athlete's foot becomes worse with time. The fungi go deeper and deeper, and the case becomes more difficult to treat. Often, a person afflicted with athlete's foot will, after months of neglect, try some remedy, and sneer at it, if it fails to effect a cure overnight or within a week. We must face the fact that advanced cases constitute a task for the physician—that they may prove extremely stubborn and difficult to treat.

For group prevention, which is a matter of interest and responsibility on the part of the trainer, the prophylactic foot bath remains the most effective method. But what should go into the foot bath? The trainer, as well as the coach, reads about hundreds of formulations, for each of which many virtues are claimed. It is only natural that he may at times find himself a little confused; everyone is.

The first consideration is fungicidal power. In other words, does the foot bath solution kill fungi? Many otherwise-effective disinfectants have little or no effect on fungi. When a material is offered for sale, ask to see the label. Does the word *fungicide* appear on it? Get the answer, and draw your own conclusion.

If it is claimed that the material is a fungicide, ask against what organisms it has been tested. In other words, does it kill only one or a few species of fungi? Who has tested it? Have disinterested, outside laboratories done so?

How quickly does it kill? Remember that the feet get rid of the solution soon after immersion. If it takes a fungicide fifteen minute to do the job, it is probably much too slow. In the opinion of many authorities, a fungicidal foot bath should kill in less than one minute.

Does it irritate the skin or rot towels? Of course, you want the fungicide to be safe.

Is it stable in its original form? You want to know how long you can store it without having it lose its power.

Is it stable in solution? You want to know whether it breaks down, and how it is affected by organic matter which gets into the tubs.

Can it be tested easily? By inexperienced help? Without costly equipment? Often, foot bath solutions are discarded while still potent—and some remain in use when they have lost their power. You should be able to determine, easily and at will, whether the foot bath is doing any good.

Having selected the fungicidal material, where should the foot bath be placed?

Certainly, not right under showers, where it will quickly be diluted to the point where it is worthless. It is wise to place tubs at least ten feet from the showers—preferably in the corner. Persons using the facilities should be instructed to immerse both feet, one after the other, in the bath.

Athlete's foot fungi and spores may remain alive in shoes. Susceptible persons should use a proper material to help avert self-reinfection: a suitable dusting powder or spray in their shoes.

Fungicidal materials can do a large part of the job of prevention, but it calls for co-operation on the part of all concerned, including the members of the student body. Where it is found that some students refuse to use the foot baths provided for their protection, a simple expedient is to appoint a monitor—a young man or woman who is respected for athletic prowess—to help keep the recalcitrant ones in line.

Athlete's foot is not as serious as pneumonia, as some would have us believe. Neither can it be laughed off, for it is considerably more serious than dandruff as a public health problem. Under war conditions, we cannot afford the luxury of preventable illness, and athlete's foot is largely preventable.

The Psychology of Deception in Football

(Continued from page 18)

terback goes for a sneak.

X

Making a minor change which may be unnoticed by a back, such as having a tackle and an end change places so that the tackle is eligible to receive a pass.—If the tackle is so well known as a tackle that he will not be mistaken by the opponent's backfield, he may be able to receive a pass without opposition.

Many variations of deception plays may be based on these principles. It would be profitable for a coach to run down the list and to record in the proper group each play he has seen. Then it would be well for him to devise as many plays as he could that would fall in each group. Many new ideas will come to him from which excellent plays may be evolved. The coach will of course stress plays which satisfy his material. For example, if he has no one who is a good actor, several of the types like numbers 3, 5, and 8 will not work. A number of the principles may be readily combined: for example, principles 1 and 3; 6 and 7, and 1 and 8. A bit of attention to the psychology of deception should improve this aspect of football.