

## AN EXERCISE PLAN FOR BEARERS OF HEART DISEASE

A set of Suggested Exercises \*

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UNITERMS: Special gymnastics. Heart disease bearers.

The exercises are organized so as work the different body areas in looseness, relation, coordination, flexibility and strength.

There are three levels of difficulty; group "a" is the simplest and group "c" the most complex or demanding.

For beginners or little demanding:

- 2 looseness exercises, 2 of coordination, 2 of mobility and flexibility, 3 strength exercises (consisting of sit-ups, back and legs), 1 or 2 mobility and flexibility, 3 exercises of relaxation and looseness.

Example: 1,3 – 8a), 9a) – 11a), 13a) – "21a), 20a), 23a)" – 13a), 15a) – 2, 5, 7a)

For advanced or demanding:

- 2 looseness exercises, 2 of coordination, 3–5 of flexibility and mobility, 4–5 strength exercises distributed through the different areas of the body, 2–3 mobility and flexibility exercises, 3 looseness and relaxation exercises.

Example: 2,3 – 8a), 9b) – 11b), 12a), 15b), 13a) – "21a or b), 20a) or b), 23 a or b), 19 a), – 17a), – 14a), – 2,5,7 a) or b)

Exercises 5 and 6 should not be repeated more than 2 or 3 times in a row.

The strength exercises suggested from 19 to 24 must not be included in a plan for carriers of heart disease previous to a 3–week – minimum training period. During the first weeks it is advisable to work out just variation "a" for 15 seconds and then, once there is no trouble, breathing-wise for instance, variations "b" and "c" may be included with timing gradually increasing. In the strength exercises special attention must be given to breathing regularity.

Also in relaxation, work out period for exercises "7a" and "7b" must be that of approximately 30 seconds, later extended to a few minutes.

The patient must carry out these activities while he feels well and it is expected that he be honest to himself in this matter.

### DESCRIPTION OF EXERCISES

- 1 – Looser right then left upper limbs, shaking hands arms.



- 2 – Looser upper limbs, shaking shoulders and arms.
- 3 – Slightly raise one of the legs, carrying out a quick weight transfer, shaking it in a relaxed way.
- 4 – With arms lined up with shoulder, relax one arm then the other, waiting for oscillatory movement to cease.
- 5 – Inhale and exhale deeply, relaxing trunk and arms when exhaling.
- 6 – From a press-up position of body and legs, slowly stretch out until completely stretched and then relax.

## RELAXATION

- 7a) Relax in indicated position with eyes closed.
- 7b) Alternately: tighten arms and hands (clenched first) and relax; tighten legs and feet (stretching them out) and relax.
- 7c) Tighter whole body, atretching it out as much as possible and then relax.

## COORDINATION

### Balance

- 8a) On tip of toes, trunk extended, tighten buttocks and abdomen.
- 8b) Leaning on just one leg, remain static.
- 8c) Walk along a line, on tip of toes, forward and backward, eyes forward.

### Coordination

- 9a) From initial position extend both arms simultaneously, one upward and one sideways.
- 9b) From initial position looser arms so as they go round in opposite ways.
- 9c) At the same time move first, forearm and arm in circles.

- 10a) Walk shifting support: right heel, left heel and right and left tip of toes.
- 10b) Walk moving right arm and leg forward and then left.
- 10c) Touch feet with hands as follows:  
right hand – left foot – crossing front  
left hand – right foot – crossing front  
the same, crossing at the back  
right hand – right foot – sideways  
left hand – left foot – sideways

### Mobility:

- 11a) Move shoulders forward and backwards (slowly)  
shoulders
- 11b) Move shoulders in circles forward and backwards
- 11c) Clap hands alternating over head and at the back, over head and in the front.

### trunk and backbone

- 12a) Extend trunk stretching out left arm and then right arm.
- 12b) Loosen head and shoulders sideways, in a relaxed way.
- 13a) With feet together twist trunk to both sides with help of arms.
- 13b) Following forward and backward oscillatory movement of the arm, move corresponding leg in the same direction.
- 14a) With hands behind your head, bring chin close to chest, gently pulling head.
- 14b) Sitting, backbone straight and legs slightly apart, tighten abdomen and back, relax letting trunk move forward.

### coxofemoral articulation

- 15a) With legs extended move hips sideways.
- 15b) Move hips in circles to both sides, keeping shoulder still.
- 15c) Leaning on one leg, "draw" an eight with foot of opposite leg.



### **front muscles of leg**

16a) Move hips forward with the help of hands slightly raising heels.

16b) Touch buttocks with heel, not dislocating hip.

### **back muscles of leg**

17a) With trunk extended lean forward and try to extended legs keeping them apart, one in front of the other.

17b) Draw trunk close to thigh with legs bent, back straight, try to stretch them.

### **ankles**

18a) Sitting with backbone straight, bend feet outstretching them slightly.

18b) Bend front leg bringing hip along, not taking heel from floor.

## **STRENGTH**

### **upper limbs**

19a) Press hands against each other abreast of chest

19b) Arm bending, keeping hip in proper position.

19c) Kneeling, bend arms on floor

### **back musculature**

20a) In prone position, slightly raise head and shoulders looking at the floor.

20b) Standing, stretch out right arm and left leg and vice-versa.

20c) The same lying down, outstretch right arm and left leg and vice-versa.

### **rectus abdominis**

21a) Arms crossed over chest, raise head slightly

21b) Arms crossed over chest stretch chin towards chest raising shoulders.

21c) Sit-ups with help of upper limbs.

### **obliquus**

22a) bring knee towards opposite elbow

22b) Arms crossed over chest, raise shoulder slightly twisting trunk

22c) Sit-ups with help of arms, bringing them to the right side and then left side of knee (middle)

### **Leg and foot muscles**

23a) Alternately touch toes and heel, slightly supporting leg

23b) Bend knees and extend legs again.

23c) Unbalance forward leaning on one leg, bending it. Extended bent leg and return to initial position

24a) Sitting properly, bend extend foot.

24b) Stand on tip of toes and then lean on heel, rocking on foot sole.

24c) Bend foot against resistance from other foot

\* Continuation of the preceding issue

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Looseness and Relaxation Exercises

1



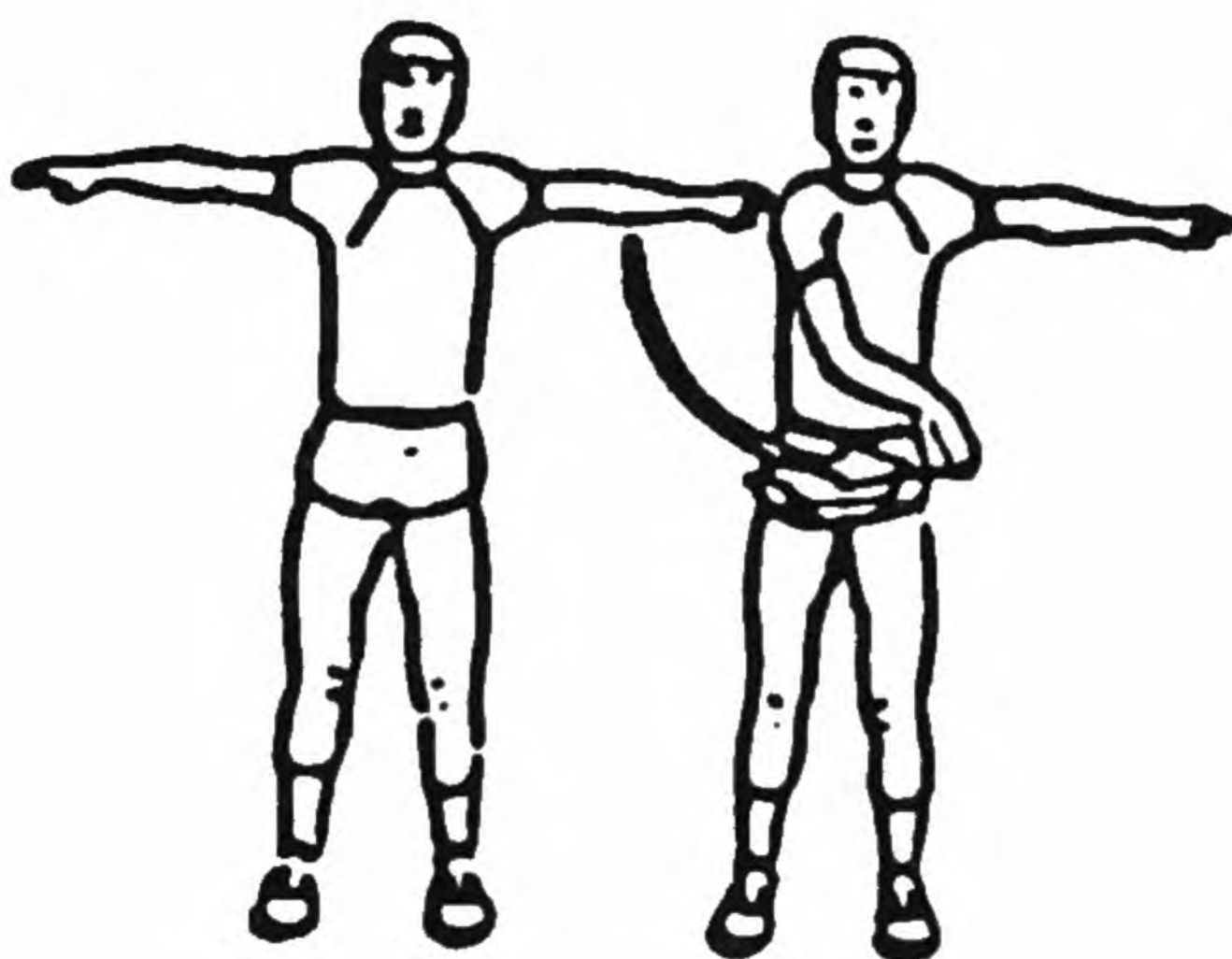
2



3



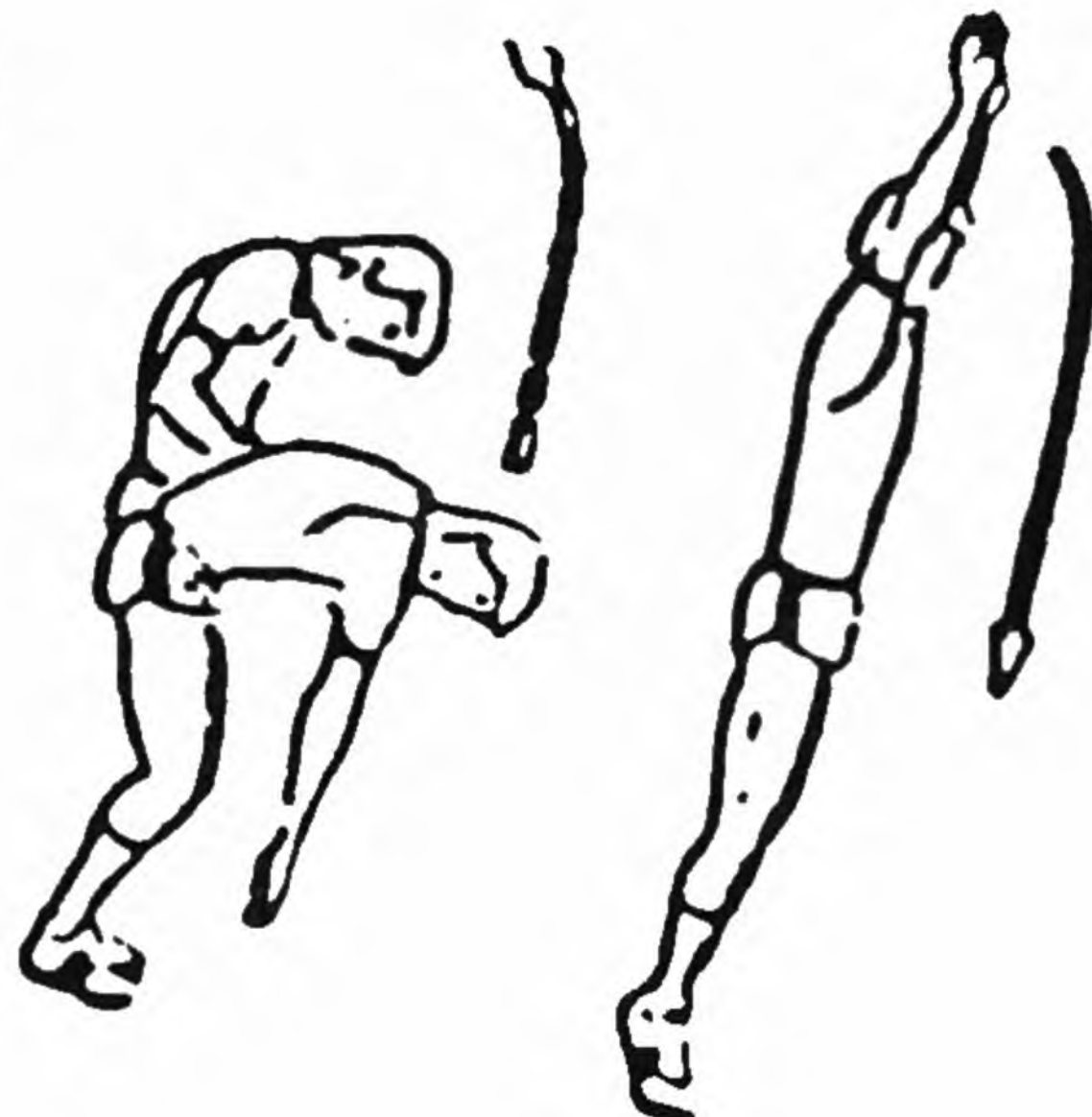
4



5



6



Inhale and exhale  
deeply; when inhaling move  
arm backwards

7a

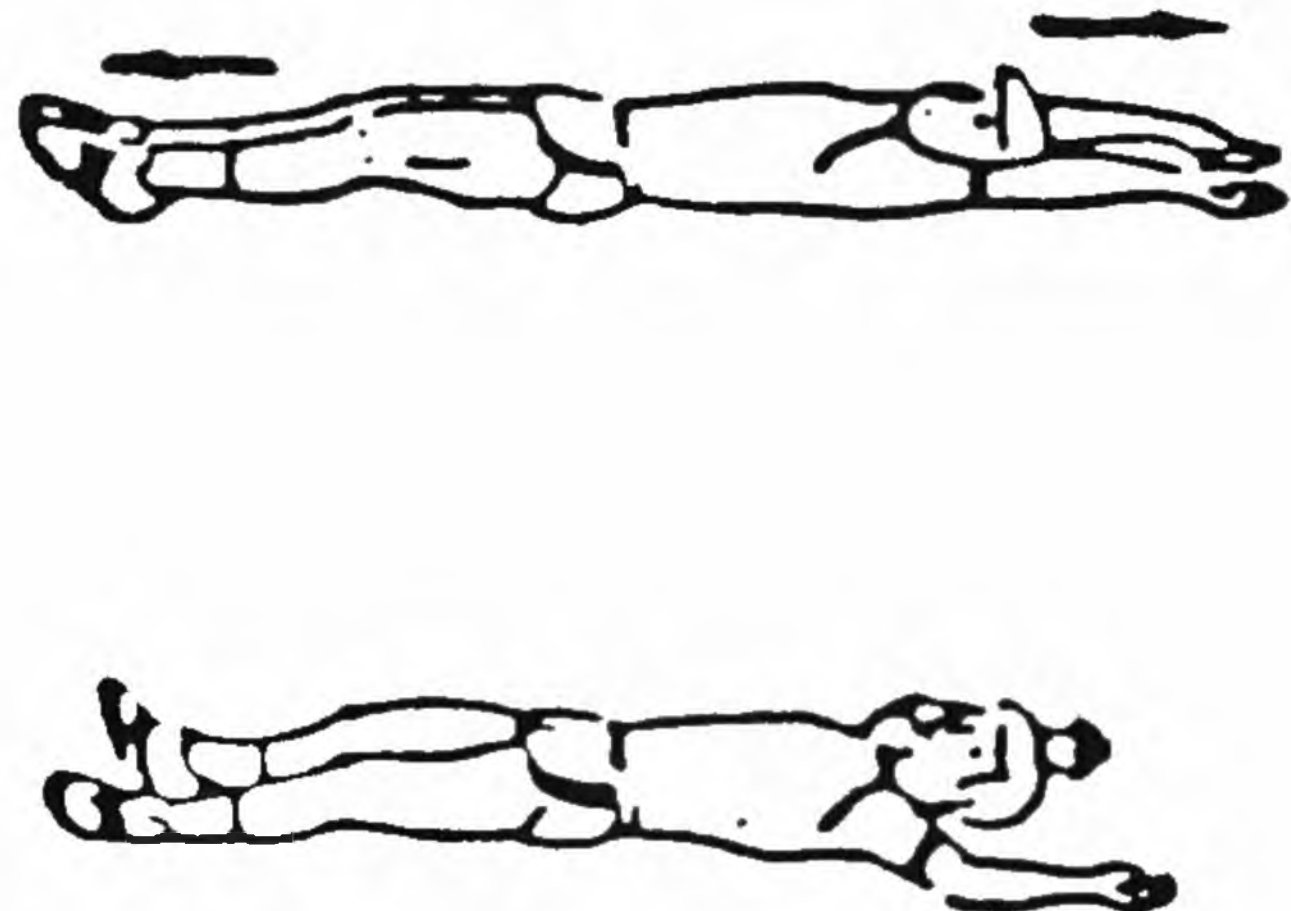


Relax; eyes closed

7b



7c



Tightness followed by relaxing



Balance and Cordination Exercises

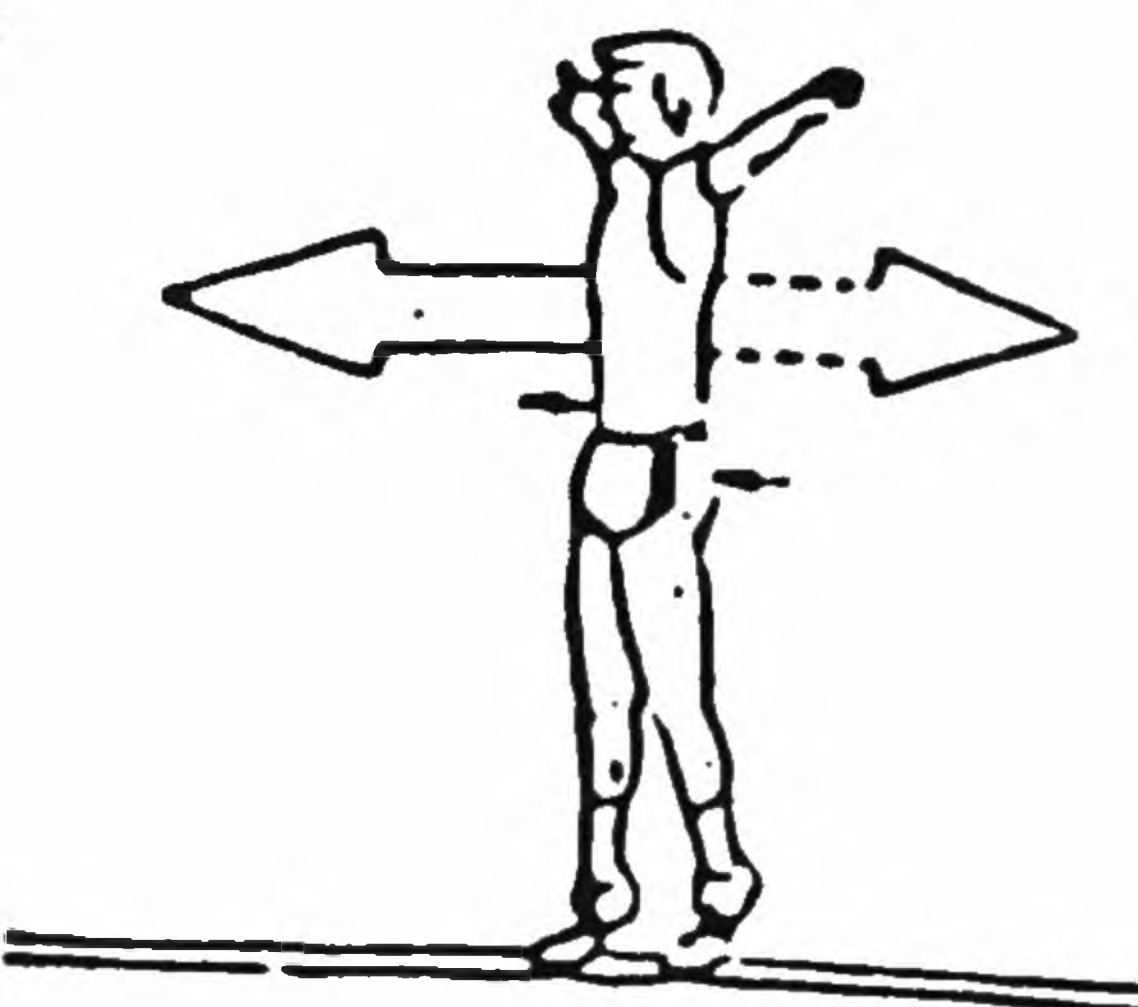
8a



8b

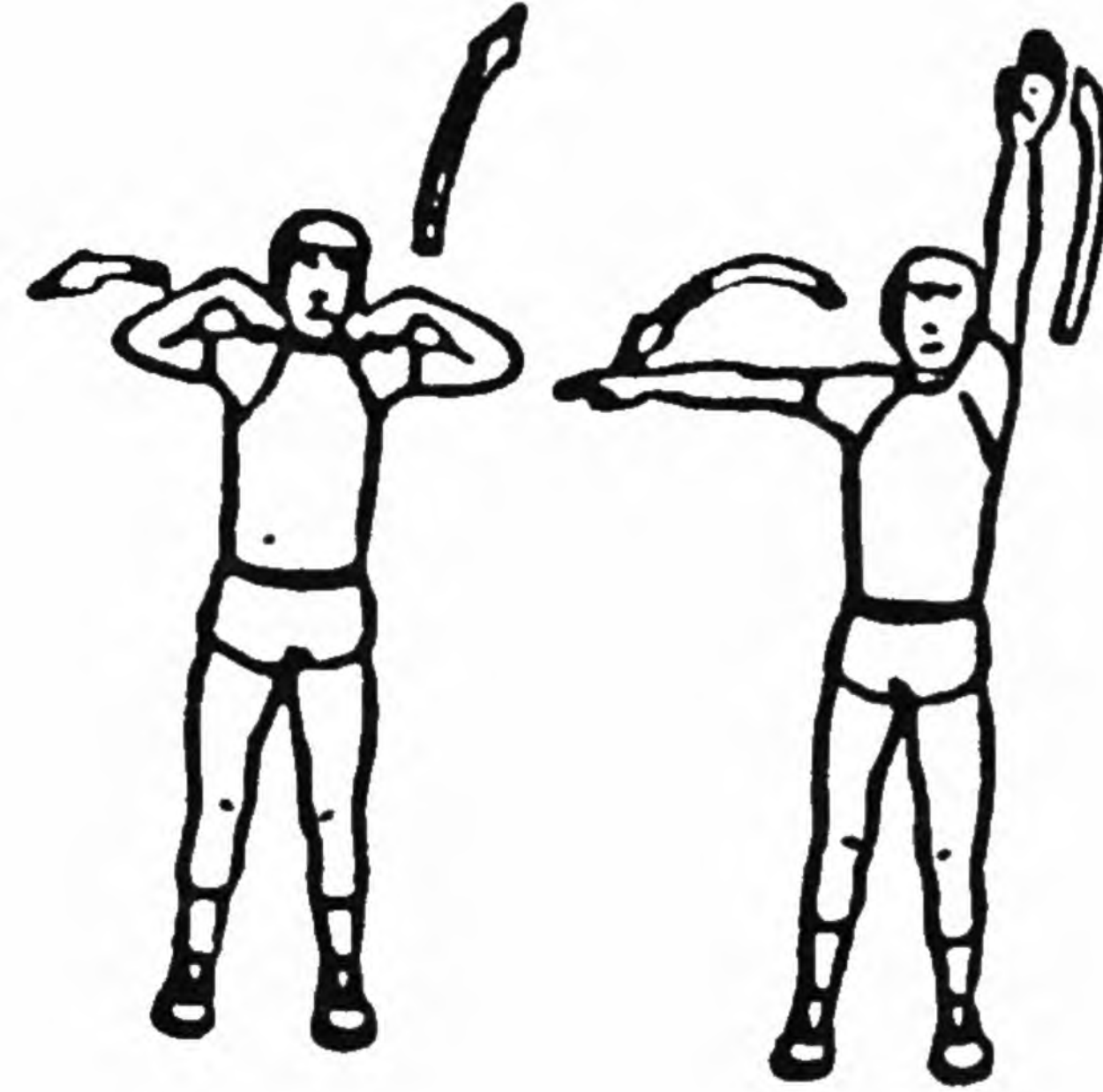


8c

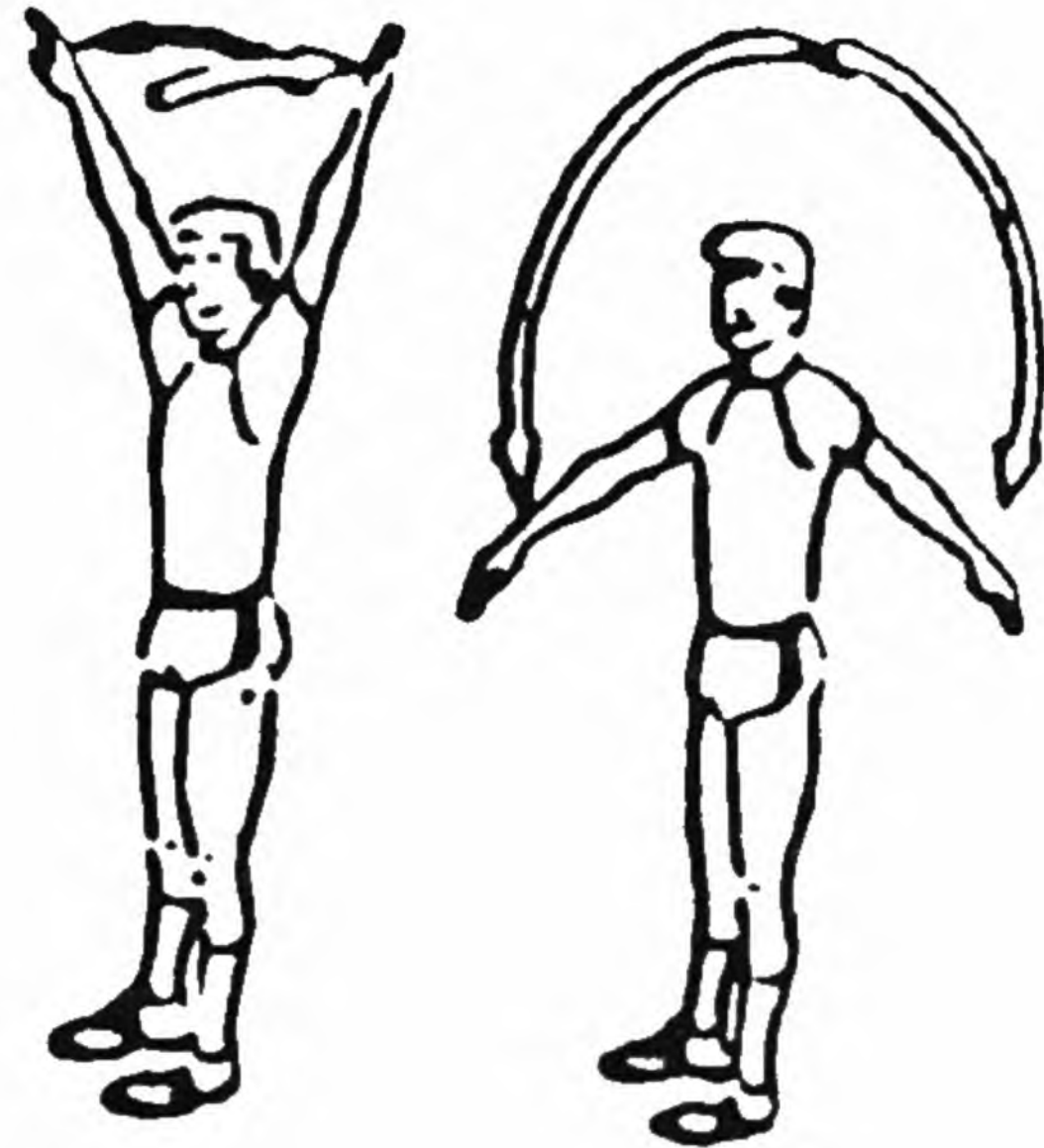


Walk forward and backwards along a line with head raised

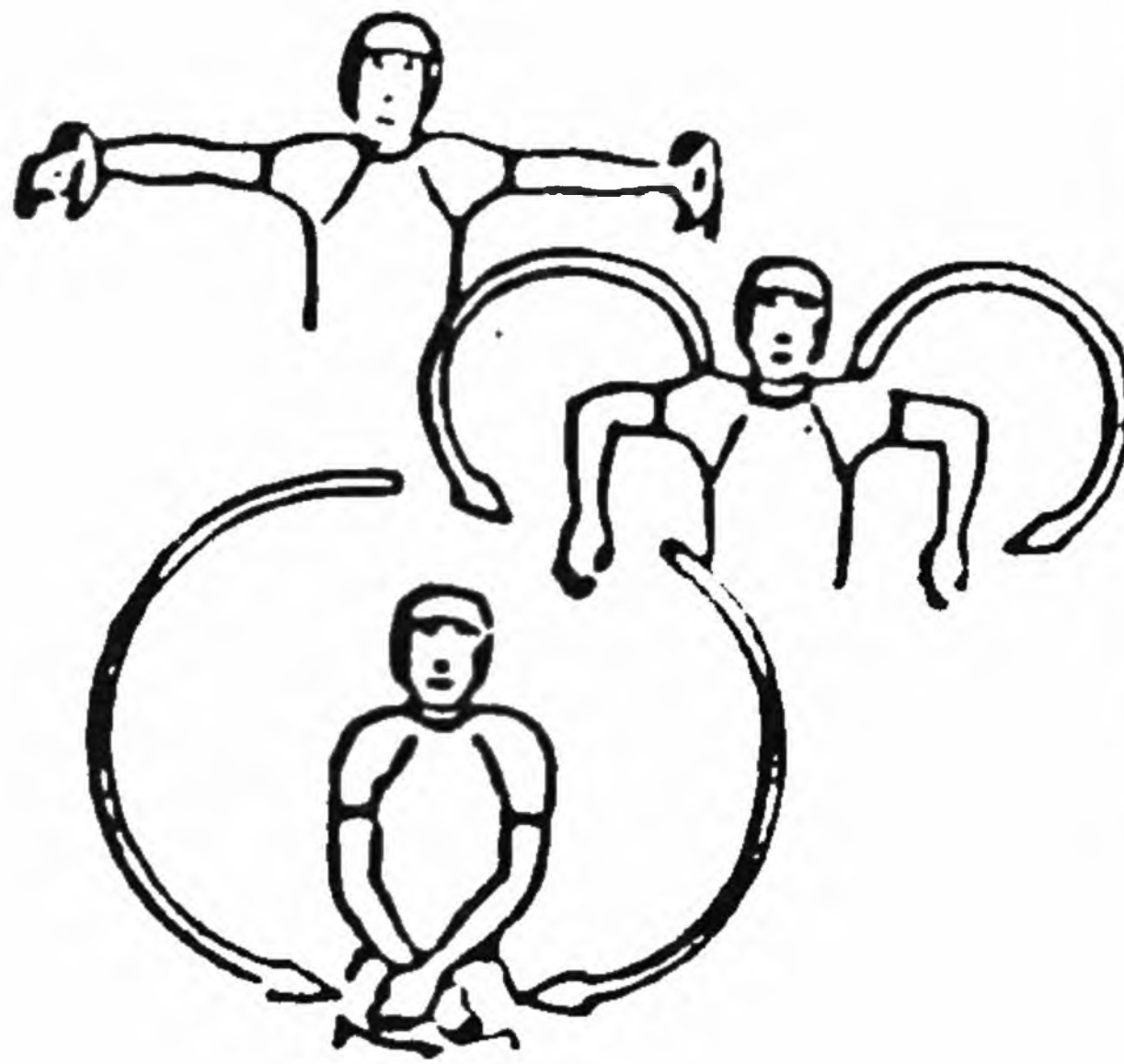
9a



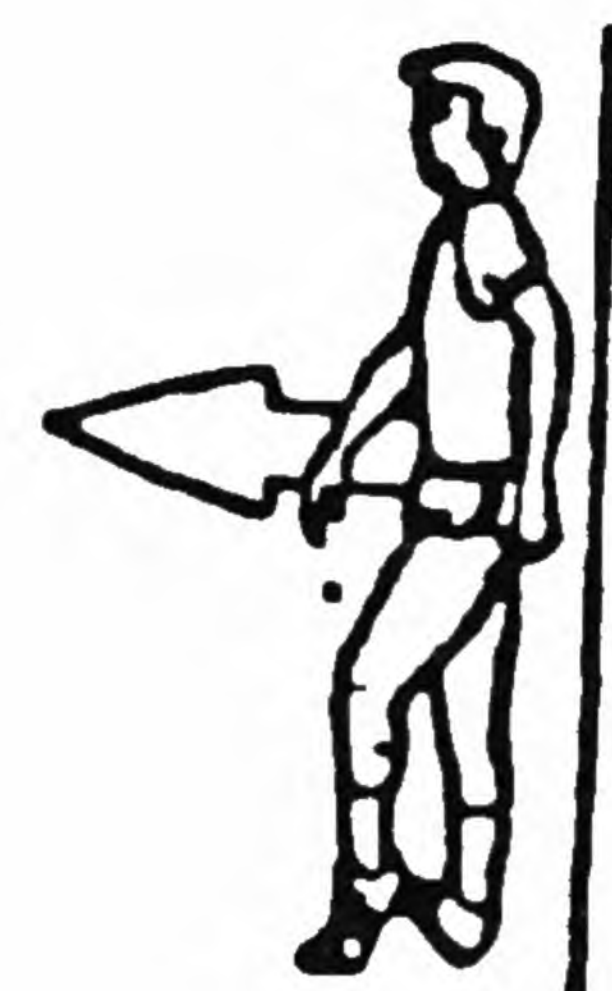
9b



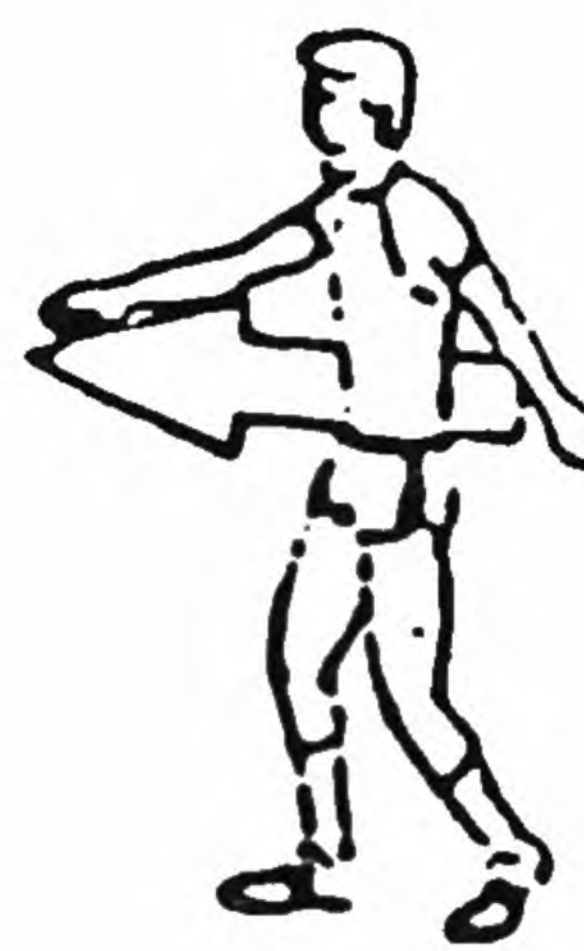
9c



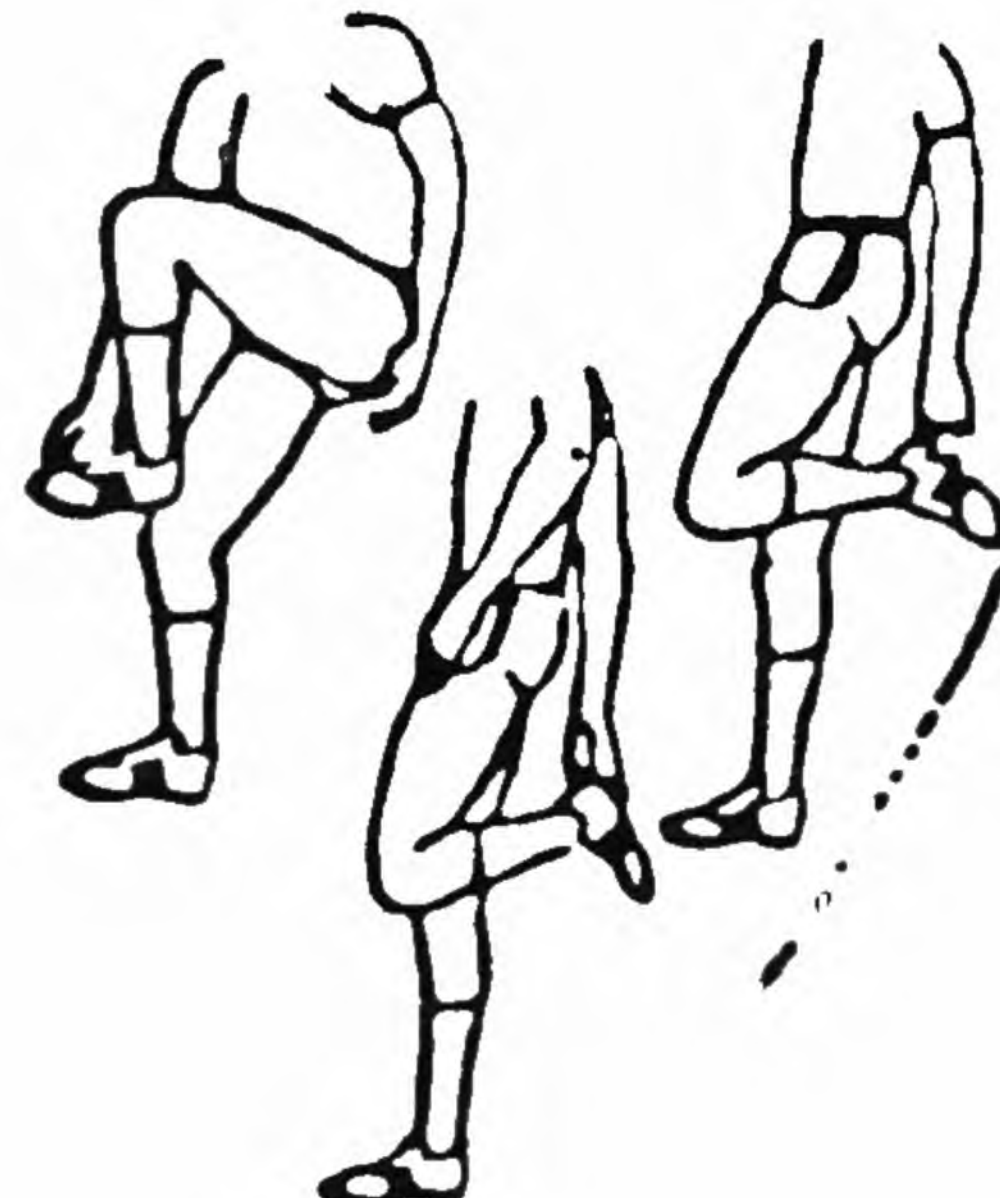
10a



10b



10c

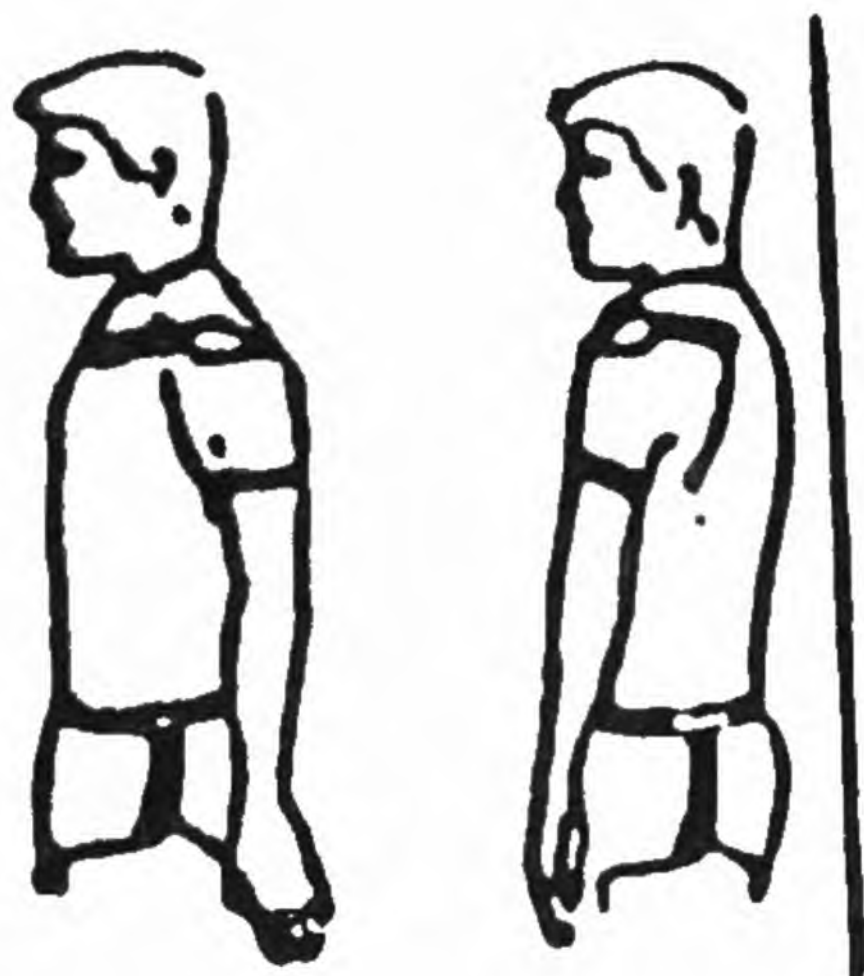




## Stretching and Mobilization Exercises

### shoulder articulation

11a



11b

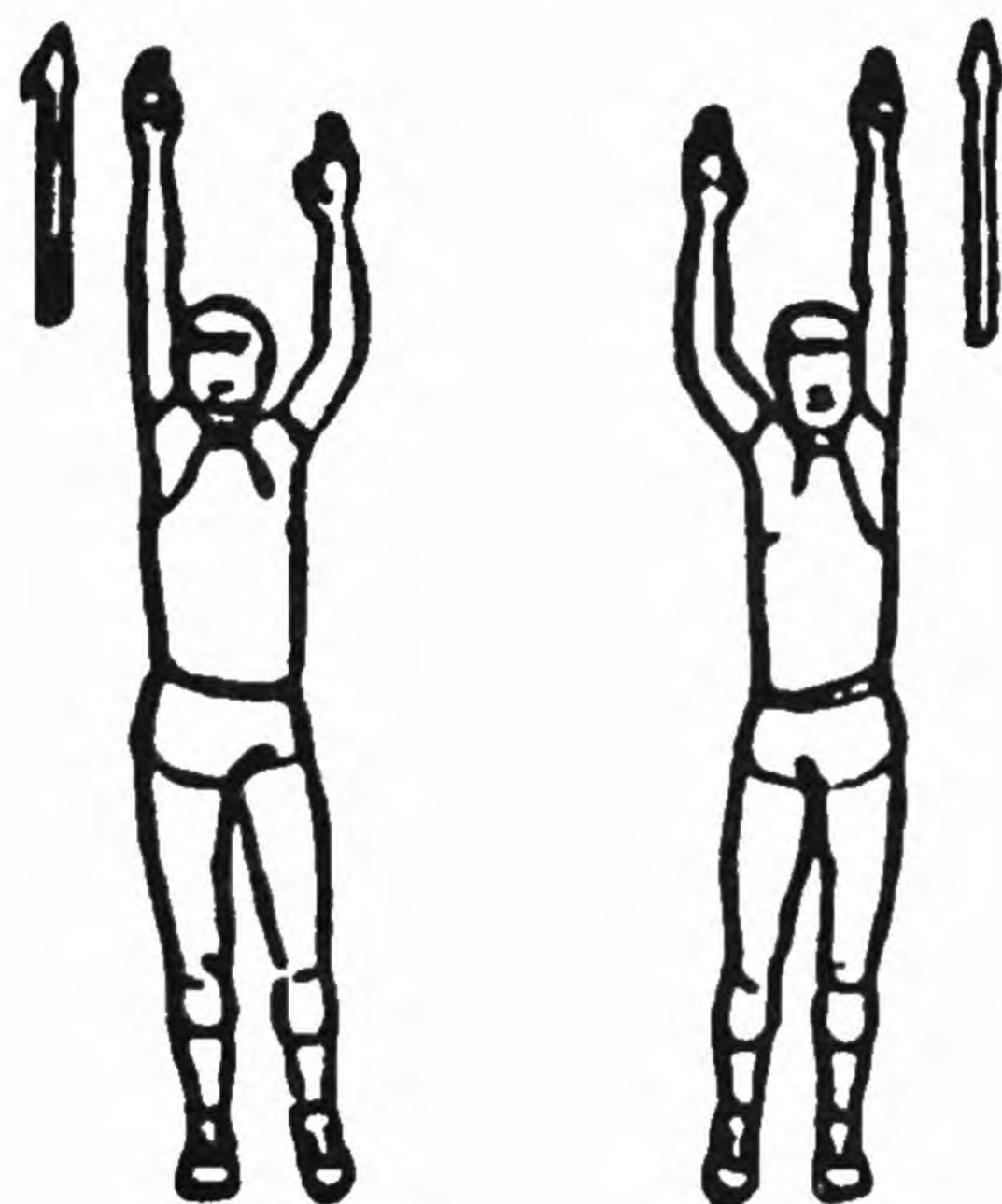


11c



### Trunk and backbone

12a



12b



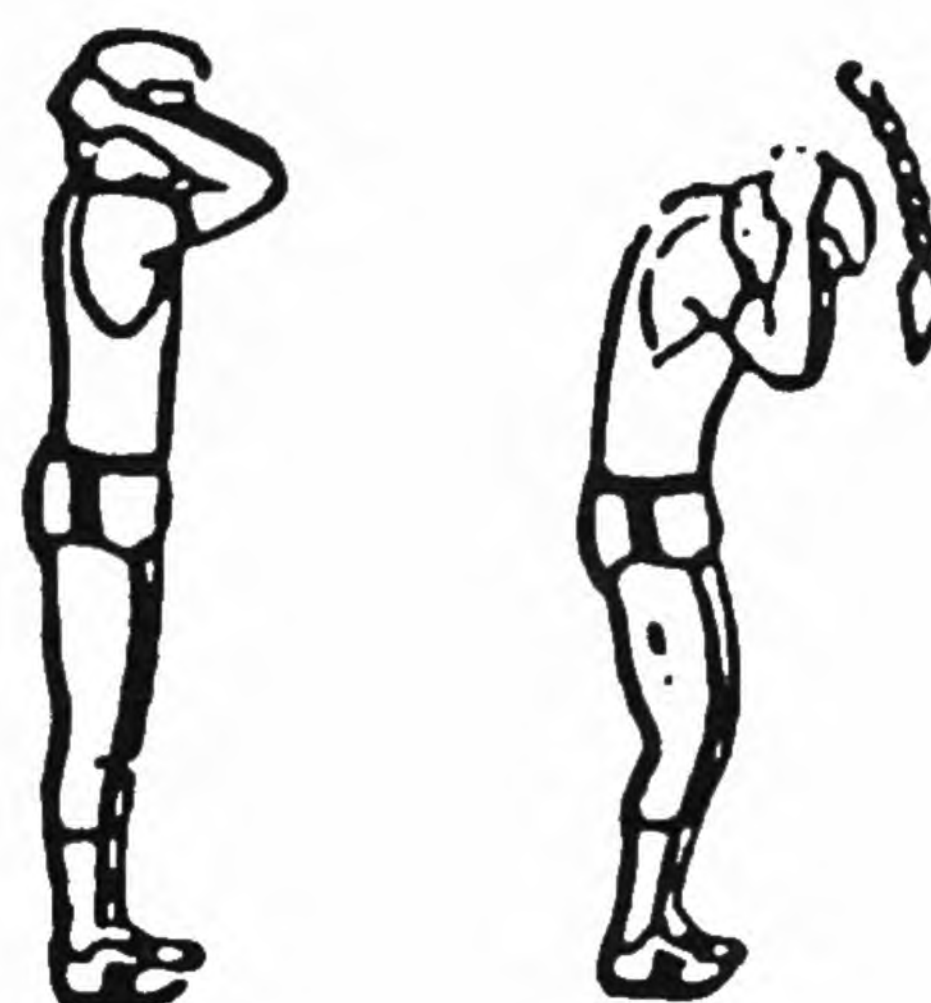
13a



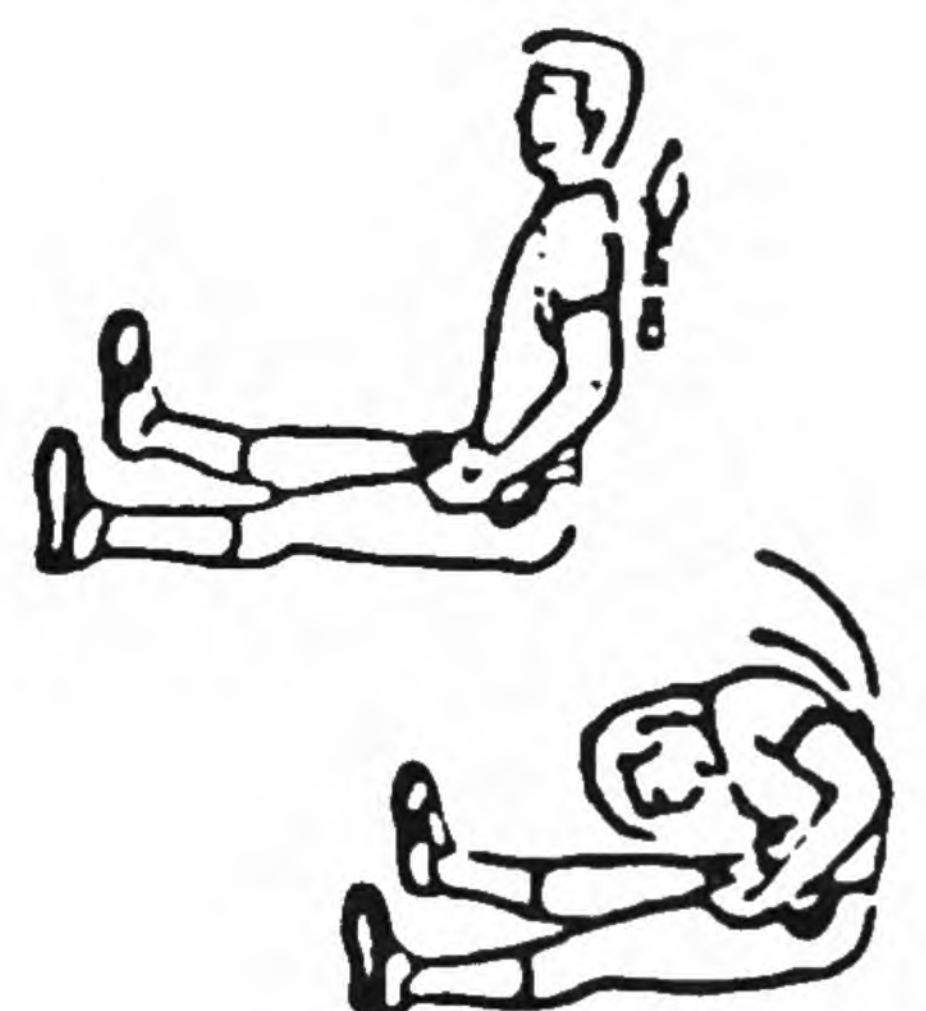
13b



14a



14b





hip articulation

15a



15b

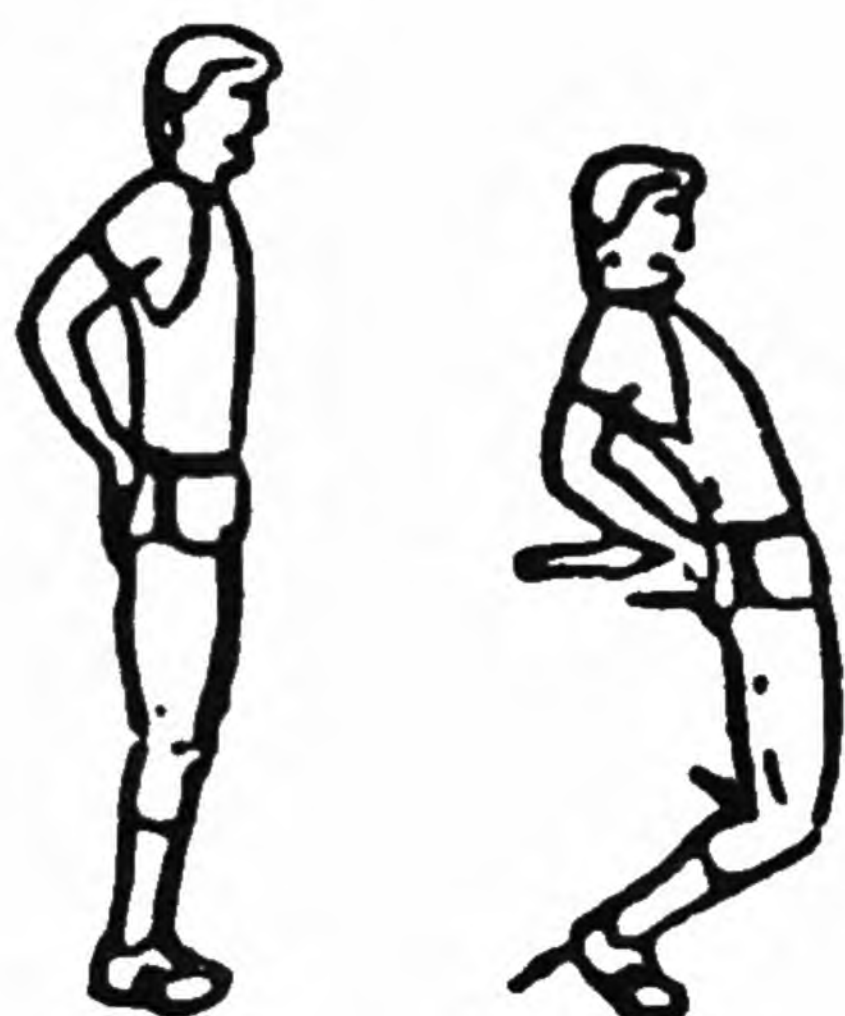


15c



legs (front)

16a



16b



thighs (back)

17a

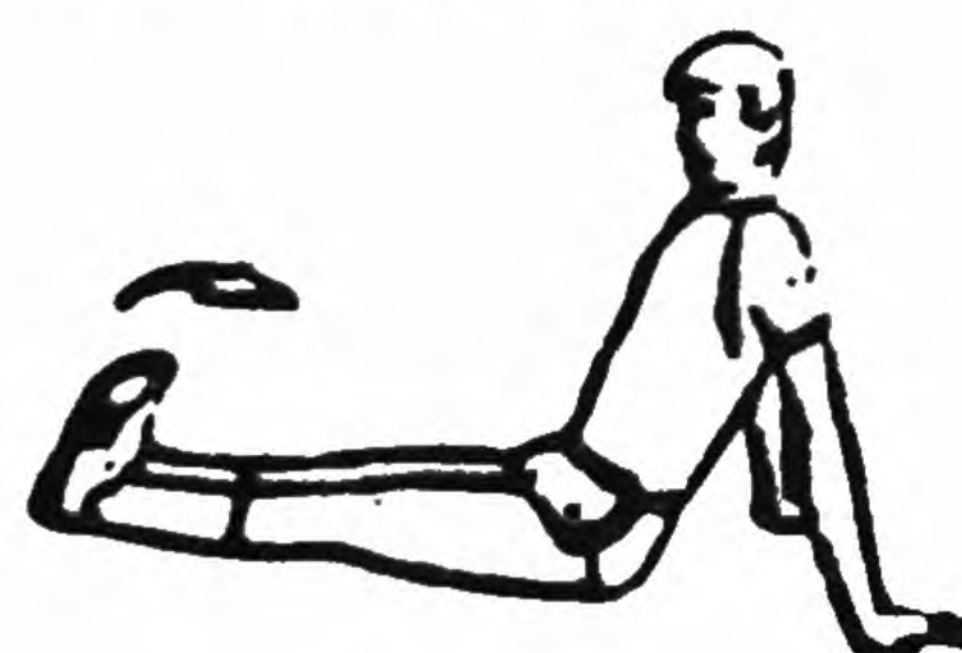


calves of the leg

17b



18a



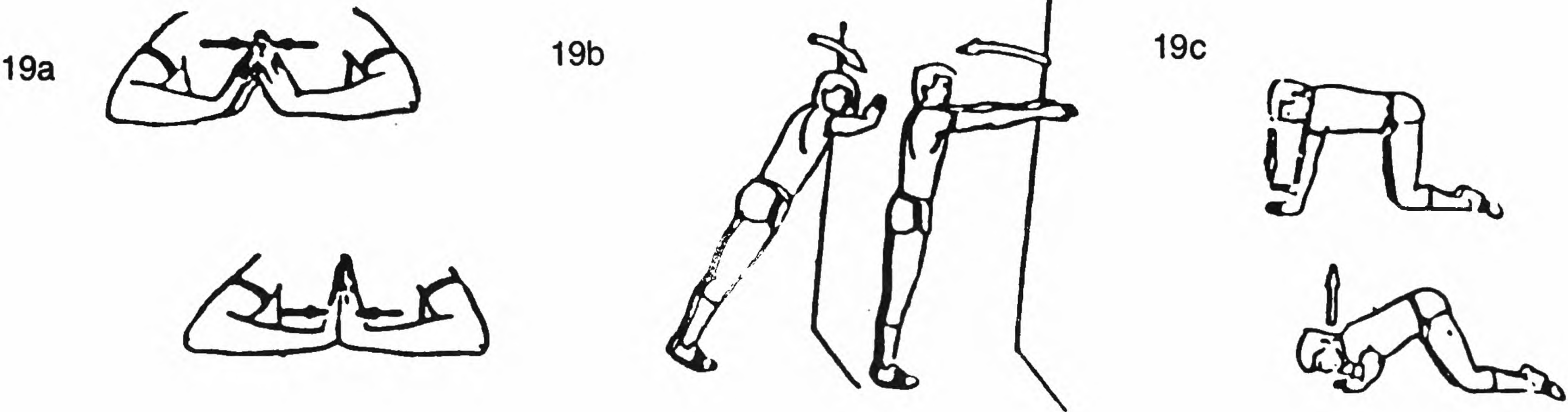
18b



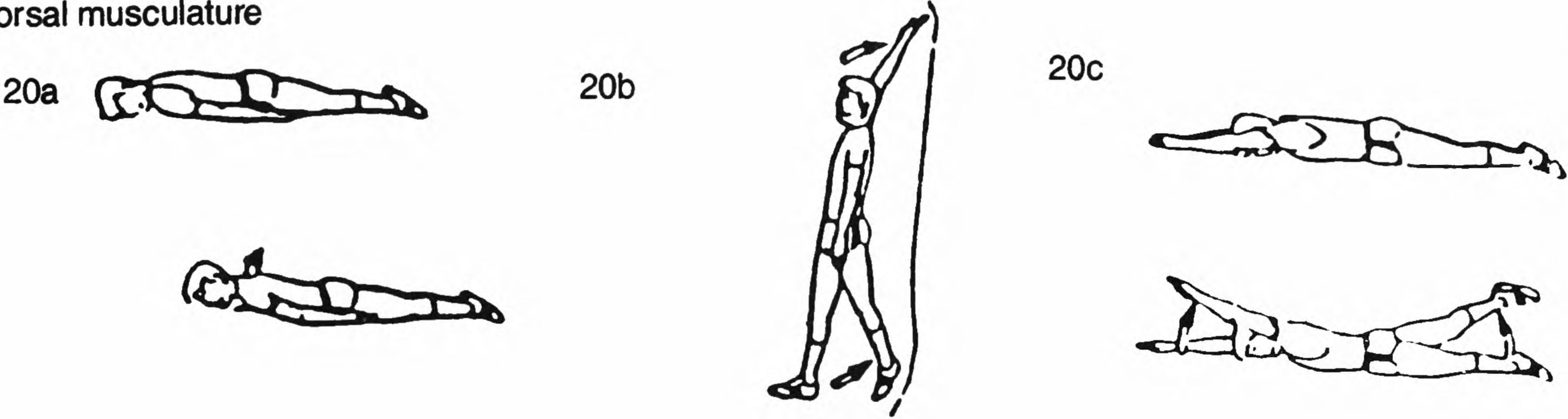


Exercises for Strength Development

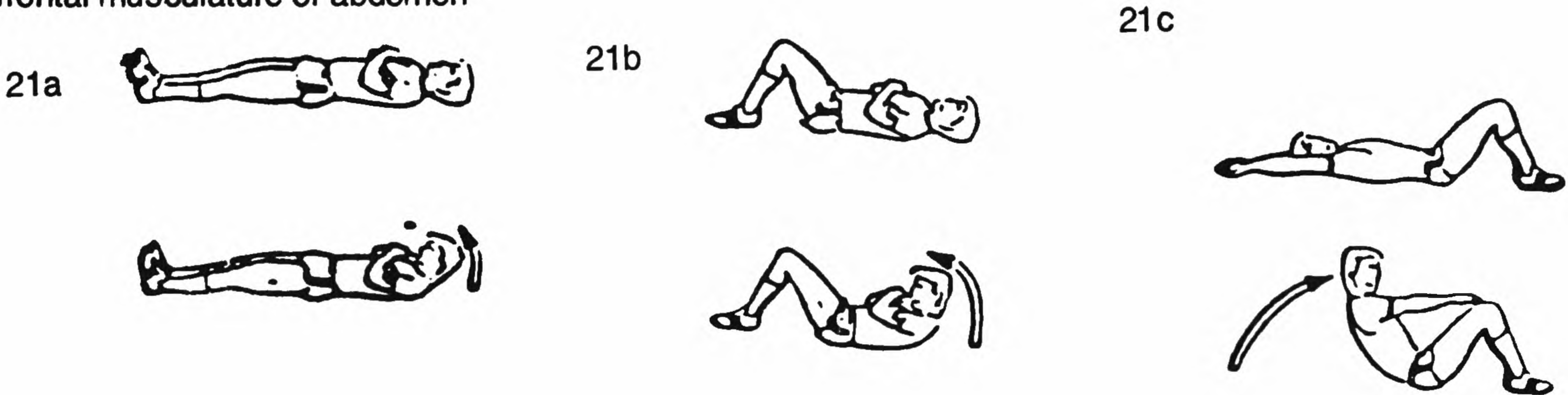
hands, neck and shoulders



dorsal musculature



frontal musculature of abdomen



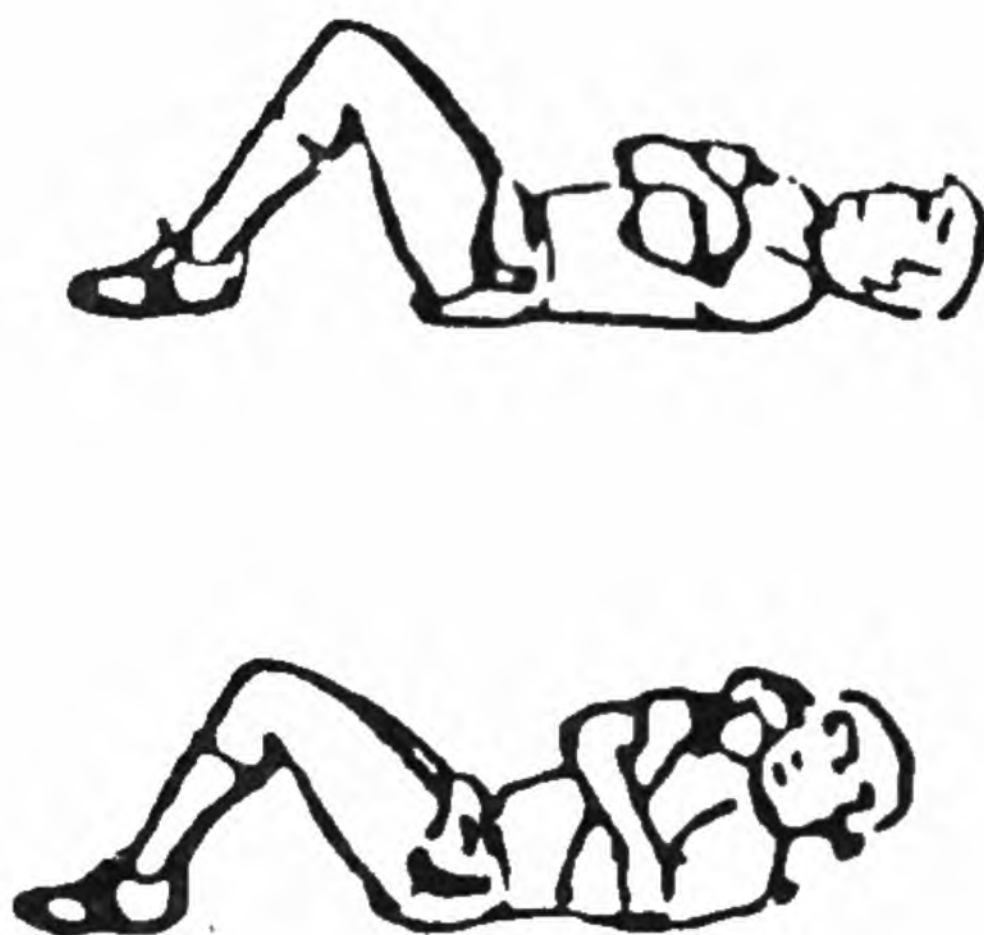


transverse musculature of abdomen

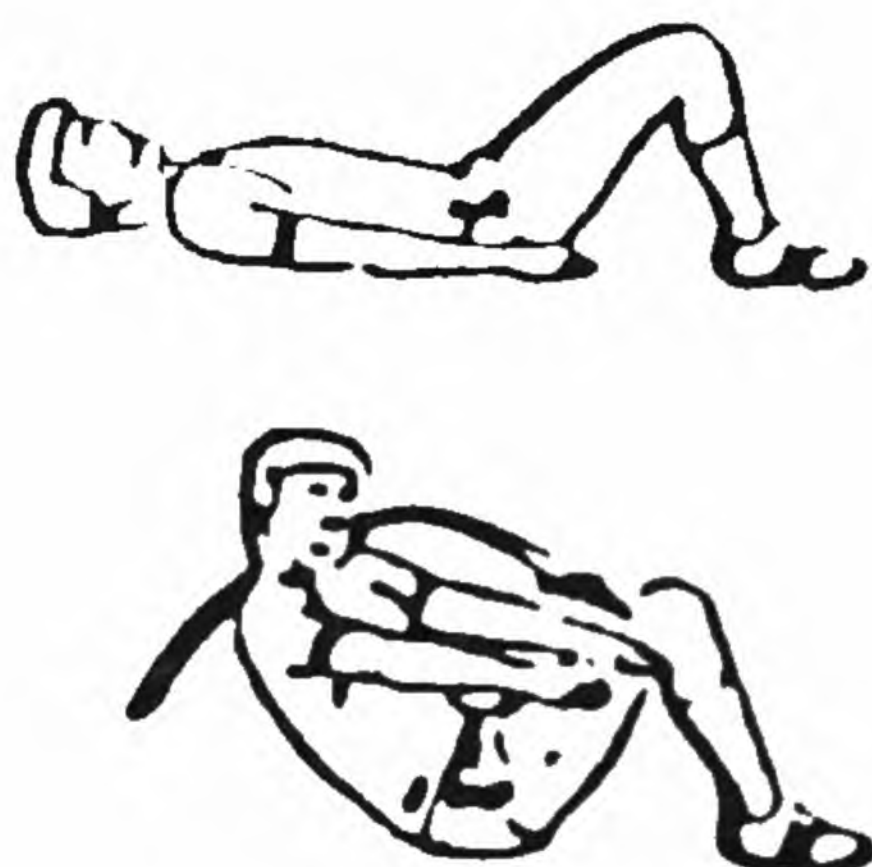
22a



22b

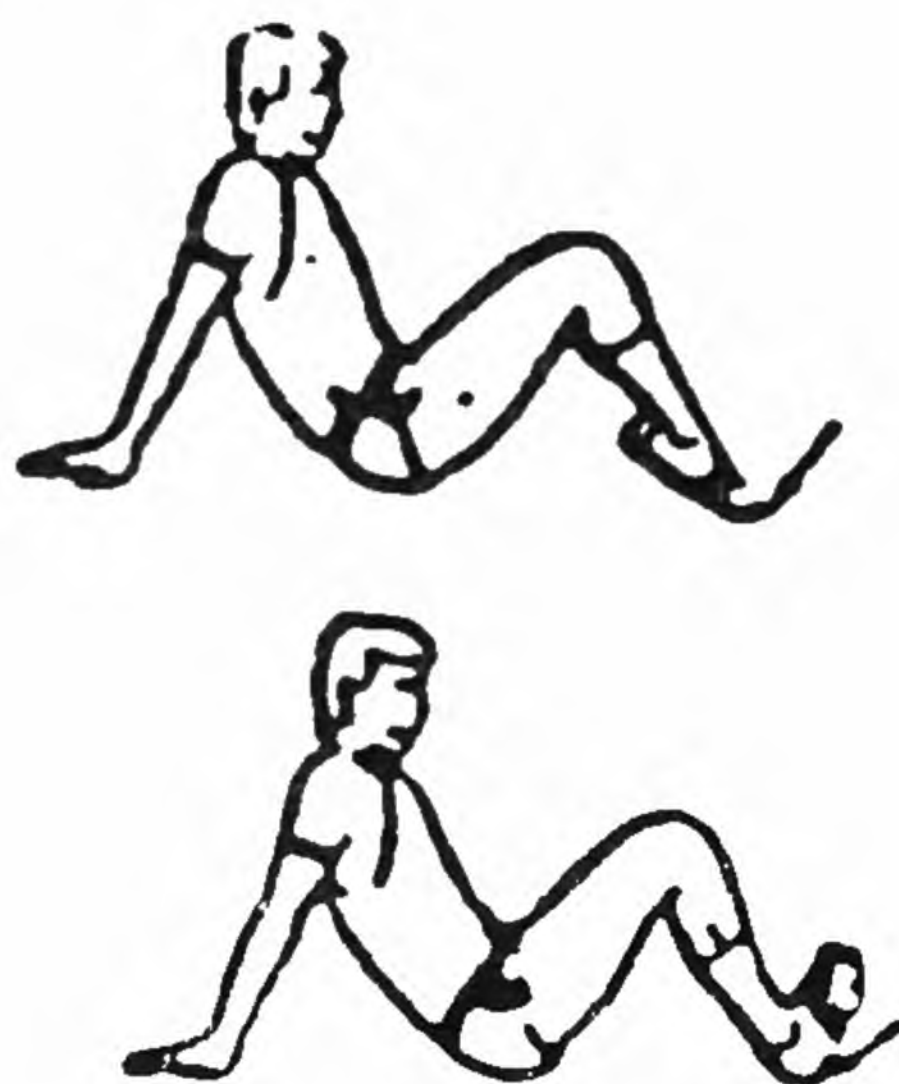


22c

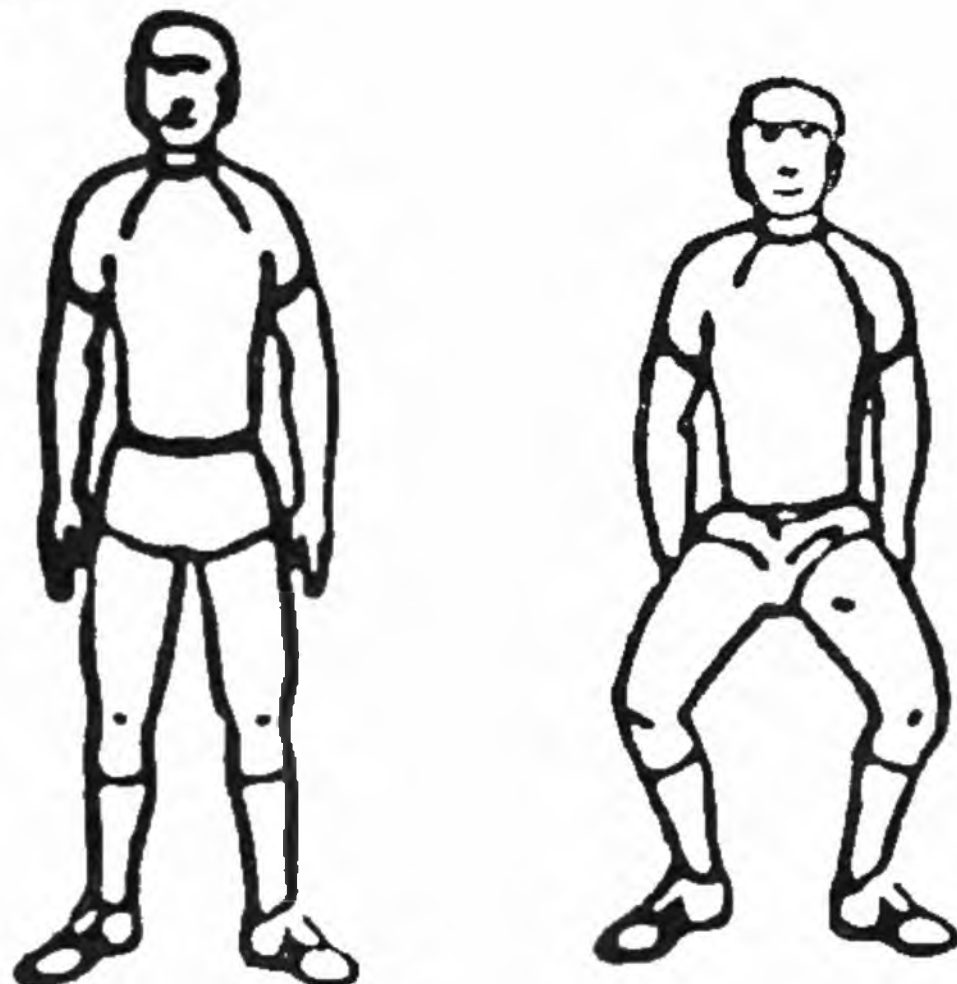


leg musculature

23a



23b

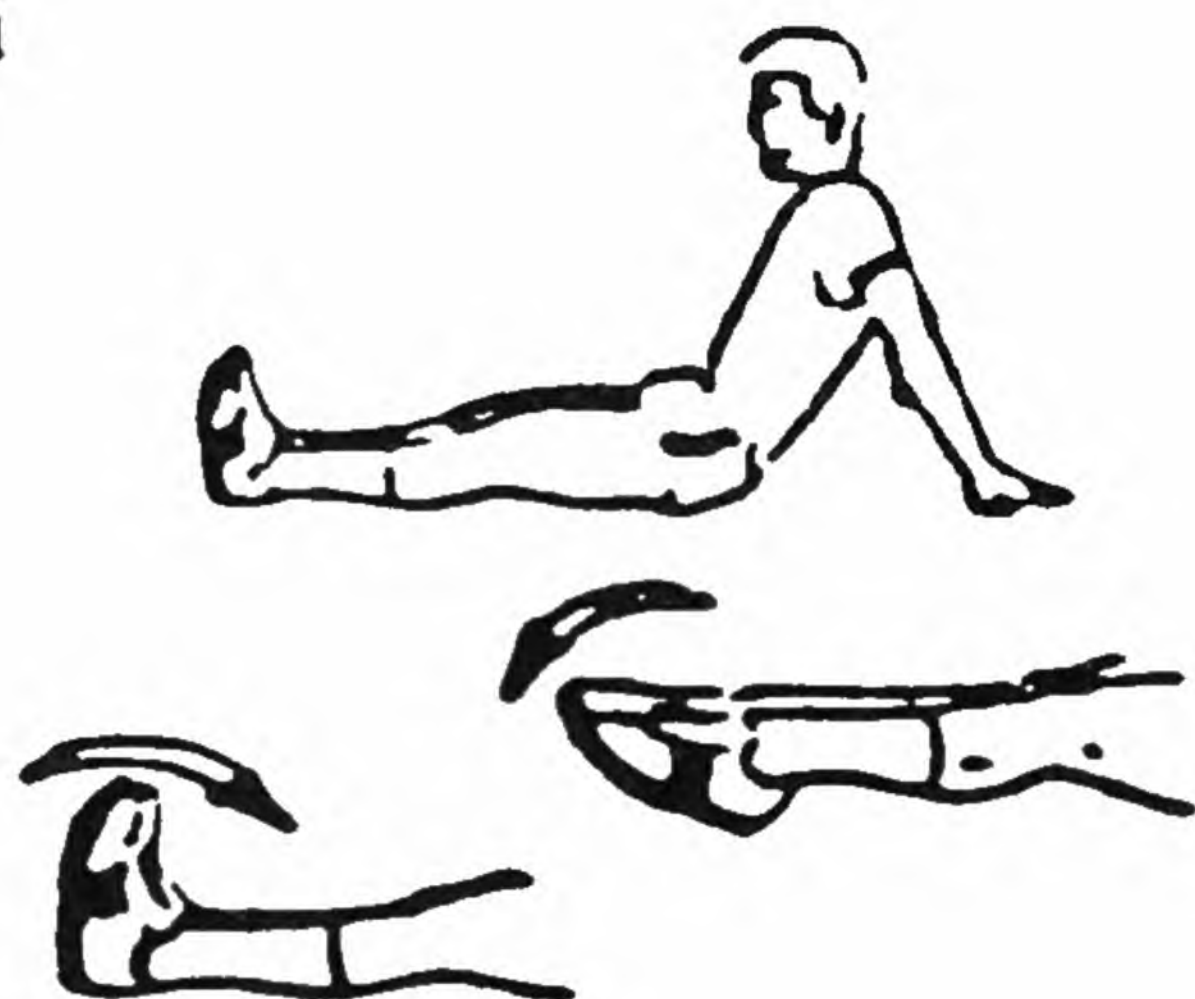


23c

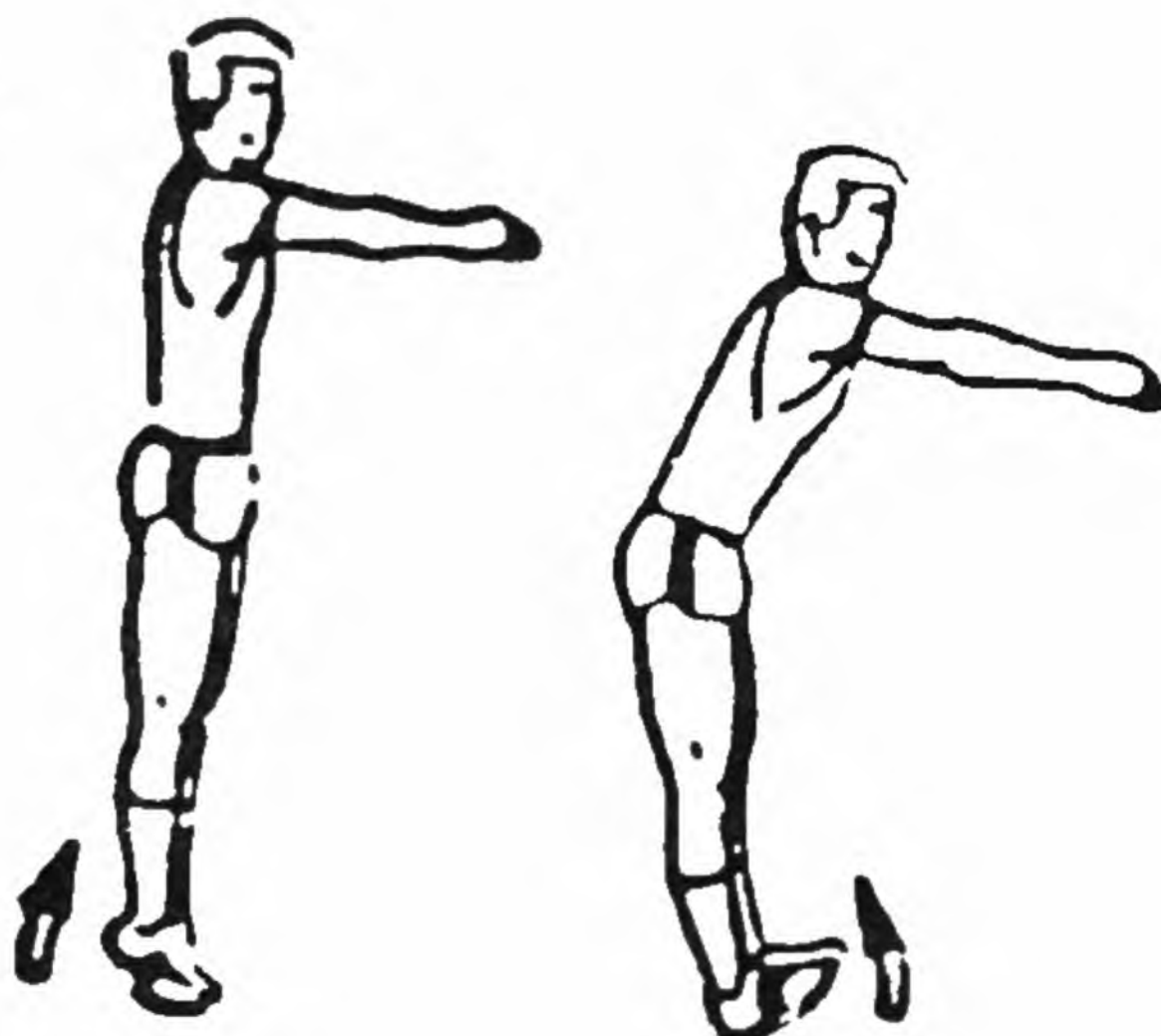


foot musculature

24a



24b



23c

