

OPTIONS FOR THE DEVELOPMENT OF CONDITIONAL ABILITIES OF CONTRACTUAL MILITARY PERSONNEL (strength training)

In the history of humanity active bodily exercise and the subsequent good physical condition has always been fundamentally important, in both self-preservation and communication. Good physical condition represents a set of priorities which are connected with a better quality of life and longer lifespan. The boom in technical development and the prevalence of urban living have both contributed to the decrease in the amount natural physical exercise and also the spreading of sedentary lifestyle. The previously inevitable physical activity of self-preservation has been replaced with inactivity. Today's modernized and civilized society relies mainly on sports and a few of the still manual work processes in order to perform the healthy amount of physical work.

Our way of life has not evolved simultaneously with the spread and development of our civilization, a fact that is sadly proved right by many health surveys today. The main reason in today's society for working disability is heart- or circulatory ailments, and locomotor diseases. One of the main reasons for this is sedentary lifestyle.

In the case of contractual military personnel „it is necessary to pay focussed attention to the improvement of their athletic well-being, as service duties present unusually great physical and mental demand.” (Kovács Péter 2005.) It is due to this fact that one's endurance, performance and physiology declines, and often, it even leads to becoming health hazard. It is crucial for contractual military personnel to have adequate health condition, which their physical condition and performance are directly linked into.

Maintenance of the functionally wholesome body of a person requires highly proficient care and personalized treatment. Lacking this care, the quality of life drops, the ability to perform service, the physical performance, reliability and expectation of life all suffer.

These physical potentials can be brought to the surface by the term 'fitness'. Mobilizational actions are performed by the contractions of the skeletal muscles. For successful performance fitness is necessary, the level of which determines the strength and speed of muscle contraction, and the ability to maintain said contraction for a lengthened period of time (strength, speed, endurance).

The divisions of conditional abilities are the following:

- strength
- speed
- endurance
- joint flexibility, agility

Two more components are important concerning strength training.

The **muscle strength** is important in the exercises which – when in a short period of time large weights and bulks need to be moved, or maximal speed is needed in movement (load carriage – march column, manual load carriage – casualty transportation, hand-to-hand combat – fighting within buildings)

The importance of **muscle strength** endurance is relevant in the case of longer term physical efforts. (carrying heavy loads, crawling and climbing in gear)

The following simple, general strength training exercises might prove helpful for those soldiers between ages 19 – 25, who do not have a gym at their station, but have access to balls, small boxes and benches. These exercises are useful

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to those that have access to gym gear, but would like to maintain or improve their strength with their body weight, or with the help of a partner. For maintenance one or two sessions a week 40-45 minutes are recommended, with repeats 10-15% less than as per instructions.

To achieve development a minimum of 3 times a week is necessary of strength training exercises, 50-60 minutes each time. The strength training exercises, independent of rank and assignment will provide a basis for success in exercises related to strength and endurance. It facilitates strength training that the different sets of exercises can be individually combined according to one's own strength

For a twice weekly exercise Monday/Thursday or Tuesday/Friday combinations work out best, the 3 session workouts are most convenient in Monday/Wednesday/Friday or Tuesday/Thursday/Friday combination. After reading through the exercises it is recommended to assess one's abilities, and lower or raise repeats or the number of cycles.

I recommend the exertions to be split to muscle groups. Within a set, the timing of pauses is 1 exertion – 2 relaxations, watching the muscle groups, take 2-4 minutes for stretching and relaxation. After strength training, 8-10 minutes of stretching, 3-5 minutes of jogging are necessary.

For guidelines see a Monday/Thursday and a Monday/Wednesday/Friday training schedule. (Eckschmiedt S., 2003.)

Twice a week.

Monday: - arm - shoulder - chest – leg muscle workout.

Thursday: - abdomen - back- leg muscle workout.

3 times a week.

Monday: - arm – shoulder- chest - leg muscle workout

Wednesday: - arm – abdomen – back muscle workout

Friday: -abdomen – back - leg muscle workout.

ARM AND SHOULDER MUSCLES STRENGTH TRAINING EXERCISES

1./ Initial position: front support push-ups, raising and lowering the body due to one's abilitien 6-8x25-35 pcs.

2./ I.p.: push up variations:

a./ 1. step: lower body, raise left leg 20 cms from ground,

2. step: raise body, lower leg,

3. step: lower body, raise right foot,

4. step: raise body, lower foot on the ground,

6-8x20-25 pcs,

b./ raise body, clap in front of chest, lower body

6-8x12-20pcs.



1. picture sequence: raise and lower body, clap.

c./ wide set front support push ups

6-8x10-15pcs

- shift weight

6-8x15-20x left/right arm

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2. picture sequence: wide set front support push up.



3. picture sequence: wide set front support push up with weight shifting

3./ I. P.: Front support push up, feet positioned on a ball, bench, or crouched partner's back

a./ push up, leaning on ball, bench or small box

6-8x20-25 pcs.



4. picture sequence: push up, leaning on ball, bench or small box

b./ one-hand push up

6-8x10-15 pcs

c./ bear crawl, spider crawl, crabwalk, frog hop cca15m distance, dynamic running back

10-12x,

d./ front support push-up, hands and feet springing to the air, hopping 15 meters

6-8x.

HAND- AND SHOULDER MUSCLE STRENGTH TRAINING EXERCISES WITH PARTNER

I./ Grab on toe, 15-meters run, switch when turning (partner holding the ankles)

10-12x.

a./ „A” partner bounces from the ground using both arms, partner „B” holds „A” at the knees

8-10x

b./ the same, bouncing from the ground holding a ball in both hands

8-10x,

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- 2./ I.P.: partners face each other in front support push up position
 - hit partners' hand,
 - pull out partners' hand,
 - push or pull partners' hand over a line,
 - make partner lose leftance in hand support

5-10x1-2 mins,

- 3./ „A” partner in handstand, „B” supporting at ankles, „A” lowers and raises body with hand support

6 x 8 pcs



5. picture sequence: „A” partner in handstand, „B” supporting at ankles, „A” lowers and raises body with hand support.

- 4./ I.P.: A” partner lying on back, hands stretched to the front, „B” partner standing 1m to the front. Handholding, „A” raises and lowers body with arm support.

6-8 x 8-10 pcs.



6. picture sequence: „A” partner lying on back, hands stretched to the front, „B” partner standing 1m to the front. Handholding, „A” raises and lowers body with arm support.

ABDOMINAL MUSCLE STRENGTH TRAINING EXERCISES

- 1./ I.P.: Lying on back , hands on nape:
 a./ sit-up exercise with holding one leg in the air, possible with belly-press as well
 (raising only shoulders, scapula)
 b./ same, with both legs in the air,

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- c./ sit-ups: - left arm, right leg in the air, while turning right,
- right arm, left leg in the air, while turning left,

6-8x15-20 pcs.

- 2./ I.P.: Lying on back, hands on nape, feet kept on ground, straddled:
a./ sit-up, elbow touches knee,
b./ torso raise, right elbow touches left knee and opposite,



7. picture sequence: torso raise, right elbow touches left knee and opposite,

- c./ same, but in one sit-up both knees need to be touched with both elbows on the opposite side
d./ same, but those more skilful do not need to keep their feet on the ground

6-8 x 20-25 pcs.



8. picture sequence: torso raise, both knees need to be touched with both elbows on the opposite side while holding legs in the air.

- 3./ I.P.: Lying on back, hands on nape, left foot with raised knee on the ground right toe on left knee.
Continuous torso raising with pressing
(changing legs, elbow touches knees).

6-8 x 15-20 pcs.

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9. picture sequence: Continuous torso raising with pressing.

ABDOMINAL MUSCLE STRENGTH TRAINING EXERCISES WITH PARTNER

- 1./ I.P.: „A” partner lying on back „B” partner supporting at ankles from front, „A” partner does sit-ups
 a./ hands on nape,
 b./ turning (right hand-left leg, left hand-right leg),
 c./ „A” partner’s knee bends rectangular at sit-ups 6-8x15-20 pcs.
- 2./ I.P.: Partners lying on back opposite to each other, knees slightly pulled, toes attached to partner’s:
 a./ sit-ups, palms meet above toes,
 b./ hands on nape, elbow touches knees,
 c./ elbow touches knees on opposite side,
 d./ in one sit-up both knees need to be touched with both elbows on the opposite side 6-8x10-15 pcs.
- 3./ I.P.: „A” partner lying on back, legs straight, grabbing on „B” partner’s toes:
 a./ raising both legs to partner’s chest height, „B” partner lets the legs back towards ground, „A” won’t let toes reach ground, but pulls his legs back into his partner’s hand.



10. picture sequence: raising both legs to partner’s chest height, „B” partner pushes the legs back towards ground, „A” won’t let toes reach ground, but pulls his legs back into his partner’s hand.

- b./ „B” partner may push „A” partner’s legs sidelong 6-8x10-15 pcs.

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11. picture sequence: „B” partner pushes partner’s legs sidelong.

4./I.P.: „A” partner on all fours, „B” partner sits on „A” partner’s back and inlays his leg in his partner’s armpit
a./ „B” with hands on nape leans back till level, and does sit-ups (role change),



12. picture sequence: „B” with hands on nape leans back till level, and does sit-ups

- b./ sit-up with turning sidelong,
- c./ lowering torso sidelong,
- d./ lowering torso with swift turning

6-8x12-15 pcs.

BACK MUSCLE STRENGTH TRAINING EXERCISES

1./ I.P.: Lying arse upwards, hands on nape:

- a./ torso raising,
- b./ torso and leg raising,
- c./ torso raising with turning (left - right),
- d./ left-right turning during a torso lift,
- e./ torso raising in high holding position,
- f./ torso raising in high holding position, while holding a ball in the hand
- g./ keeping up torso lift for 4-5 seconds

6-8x20 pcs .

2./ I.P.: Lying arse upwards with high holding position:

- a./ exercise 1: left arm - right leg

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- exercise 2: arse upwards, high holding position,
 exercise 3: right arm - left leg,
 exercise 4: starting point
- 6-8x15pcs.
 6-8x15-20 pcs,
 6-8 x 25-30 pcs.
- b./ continuous, arm-leg raising (opposite),
 c/ keep the leg and arm up for 4-5 seconds,



13. picture sequence: Lying arse upwards, high holding position left hand-right leg; right hand-left leg

3. I.P.:/Straddle, torso bending, ball in hands:

- a./ torso raising the ball kept in high holding position, 6-8x,
 b./ continuous torso raising till bending, 10-15x,
 c./ torso raising, turning left-rightwards, ball held in hand, in high holding position 20x.

BACK MUSCLE STRENGTH TRAINING EXERCISES WITH PARTNER

I./I.P.: Partners lying arse upwards, with a 1 meter distance opposite to each other, „A” partner holds ball in the hand:

- a./ continuous ball passing with torso raising, 10-15 pcs,



14. picture sequence: continuous ball passing with torso raising.

- b./ continuous torso and leg raising with ball kept on passing to each other 30 seconds.

2./I.P.: „A” partner lying arse upwards, high holding position, „B” partner, standing straddle, holds a ball above „A” partner’s hands:

- a./ „B” partner drops the ball to „A” partner, who, before ball could reach the ground gains possession, and throws it instantly back to „B” partner .after-6-8x8-10, partners change role,

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15. picture sequence: B" partner drops the ball to „A" partner, who, before ball could reach the ground gains possession, and throws it instantly back to „B" partner

b./ dropped ball kept in the air for 3-5 seconds. after 6-8x8-10, partners change role,

LEG MUSCLE STRENGTH TRAINING EXERCISES

- 1./ Knee bending till rectangular, beating own weight(toes on ground), 6-8x10-15 pcs,
a./ raise on tiptoes and back (turned up bench, toes on edge, ankle a bit further down) 6-8x20-30 pcs.
- 2./ hopping on one foot, both feet on 15-30m distance 6-8x20-30 pcs,
a./ hopping to the ball then above, left-right in front and back, 6-8x10-15pcs,
b./ hopping on distance, the less hops needed to beat the distance the better, 6-8x,
c./ hopping above painted lines left-right, 6-8x,
d./ after beating the distance run back to starting point,
e./ gouge jump from crouch, after 5-6 jumps 8-10 meter sprint run 6-8x10 pcs.
f./ 15-20meter distance in crouch and hopping, 6-8x,
g./ hopping on 1 or both legs above balls or then sprint back to starting point, 6-8x,
h./ hopping on both legs with knee pulled up at each hop till at least level 6-8x8-10 pcs,
i./ hopping on both legs with ball kept in-between ankles 8x10 pcs.
- 3./ Runs, hops up on stairs, left- right- both legs, crouch (sprint run back to starting point). 6-8x,8-10pcs,

LEG MUSCLE STRENGTH TRAINING EXERCISES WITH PARTNER

- 1./ Partners carry each other on 15-20meter distances
a./ on 20 meter distance „A" partner holds „B" partner in the arms, and runs to the end line, where they sprint back to starting point, after getting back there, partners change role 8-10x.
b./ knee bending till level with holding partner in arm on back or on neck 8-10x.
- 2./ Chicken-fight: both partners in crouching positing. Trying to cause off balance in partner through hopping and colliding with each other 10x30 mp.
- 3./ „A" partner, lying on back raising legs on a 45angle in small straddle, with straight knees „B" partner leans on „A" partner's feet with back or holding balance with hands „A" partner does bend and extend knee exercise, 6-8x10 pcs.

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16. picture sequence: „A” partner does bend and extend knee exercise,

4./I.P.: „A” partner sets himself in kneeling position, „B” partner holding the ankles from the back, „A” partner continuously leans front and back
6-8x10 pcs.



17. picture sequence: „A” partner continuously leans front and back, while „B” helps out with holding ankles

STRENGTH TRAINING GAMES, COMPETITIONS

The following games have general effect, therefore limited use for the specific development of certain body parts. Still, for playful unwinding exercise after training I suggest their usage in larger groups.

- „human polo”: 2 or 4 goalposts, switching „rider” and „horse” every 30 seconds,
- „cavalry combat”: the goal is to pull down the rider from the horse (horse can only support rider),
- „spider football”: several goalposts, several balls, several teams (must keep initial position even when not guarding the ball),
- head catch: 5-6 players have balls, 10-12 do not. Non-possessors must be hit with headed ball, and then they take turn as catchers. Whoever ends up with ball at the moment of whistle, will have to do extra tasks (hand, shoulder and shoulder muscle strength)
- kick catch: as above, with the ball kicked,

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- get the ball: 6-8 have ball, 8-10 players don't. Whoever has none must tackle the ball. Whoever ends up without a ball, has to do extra tasks,

- line- and relay races: different tasks must be performed (e.g.: „spider crawl”, „bear crawl”, „bunny hop”, hop on both or one feet, carry each other, „frog hop”, etc.),

- tame rugby: can be played in the gymnasium, two teams start from the baseline, from different initial positions, to the ball(s) placed in the middle. The ball must be placed on the opposing baseline. Playtime 10x1 mins (can be played with hands, feet or head to pass the ball)

- catch: hop on one foot, hop on both feet, squat hop, crouch, „spider crawl”. Playtime 10-30 seconds (catcher has to do torso strengthening exercise).

In my experience adults also enjoy playful competition, as it diverts attention from the difficulty of the exercise, it is entertaining, it motivates one to fight, to compete, and in hope of victory to exert one's self more.

Physical fitness of military personnel „helps in everyday training and eases work related stress, advancing mental fitness. Good physique improves the organism's overall health, the individual's quality of life.”(Eleki Zoltán 2003.)

Contractual military personnel are determined in combat by technical proficiency, emotional, mental and physical readiness and ability. Deployment and therefore combat value declines when one of these components is not adequate. Military personnel on duty, due to physical fitness are reliable and exude confidence. Their confidence, mental, physical training enabling the best performance even in the hardest of circumstances.

SOURCES

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