









INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

INTRODUCTION TO THE PHYSICAL THERAPY I

CLASSIC MASSAGE SELF-MASSAGE SPORTS MASSAGE MASSAGE OF SCARS

TEXTBOOK FOR PRACTICE

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MASSAGE

Meaning of the word massage

Massage – this term is derived from the Greek word massé (squeeze, knead). The verbal radical occurs in the French word masser, in Hebrew mases, in Arab mas, in Latin massa, in Sanskrit makch, which almost always means rub, lubricate and so on.

History of massage

Characteristics of massage

Procedures of the therapeutic massage belong to the mechanotherapy because they are an effective means of the mechanical stimuli. The goal of the massage is a beneficial effect of local and systemic conditions, problems and changes due to disease, injury or exertion, or prevent of disease. In addition, the massage helps to promote physiological processes in the body, strengthening health and to increase the overall resistance.

Depending on the application we recognize massage:

- manual (classic, reflex, massage of internal organs, sports, beauty...)
- instrument
- combined forms

CLASSIC MASSAGE

The classic massage can be defined as a system of massage techniques that is carried out on the body of a patient with therapeutic intent.

The physiological effects of massage

Massage induces local, distant and overall reactions in the body.

<u>The local effect</u> is manifested in the skin by accelerated removing its superficial horny layers, thereby releasing the channels of the sebaceous and sweat glands. It helps the skin perspiration and maintaining of appropriate chemical reactions of the skin surface and normalization tension of skin. A friction speeds up emptying of surface and lymph vessels, increases blood flow, i.e. the increased number of active capillaries promotes the absorption of oedema, effusions, haemorrhages in tissues, eliminating fatigue inducing substances (lactic acid and other metabolites) and improve nutrition and supply of oxygen. The correct choice of massage techniques can achieve an increase or decrease in muscle tension, improve trophic muscles and reduce pain. Targeted massage can help to release and disrupt adhesions in scarred subcutaneous connective tissues, in around the joints, in the course of tendons and their sleeves.

<u>Distant effects</u> are mediated by reflective way mainly. They manifest by the change of blood flow and by improving activity of deep tissues and organs.

<u>Overall effects</u> are directly proportional to the body surface to which it operates. Irritation of the nerve endings arise biologically active substances (amines). The overall effects are reflected in the change of vegetative balance, in increase metabolism, in the change of the internal environment and activity of the endocrine glands. Massage has an overall calming or stimulating effect on physical performance and affects the CNS, which in turn affects peripheral organs and their functions. Massage promotes blood circulation in its overall insufficiency (better effect than in healthy blood circulation). The cardiac function is positively affected by accelerating venous return; the heart is less energy-loading. It improves tissue respiration and gas exchange in the alveoli. Also thermoregulation is positively influenced.

The conditions, preparation and methods of classic massage

<u>Room:</u> well lit, ventilated but draft-free, minimum size 3,5 x 2,7 m, with air temperature of 22-25 $^{\circ}$ C, washable floor, not slide, walls to a height of 180 cm washable.

<u>Massage table:</u> accessible from all sides, about 70 cm high (adequate to height of masseur), hard pad with a soft washable mattress, clean bed sheet and towels for each patient.

<u>Additional equipment:</u> two stools (without backrest), massage table, sink, pillow, cylinder below the knees.

<u>Masseur:</u> qualified, healthy, average strong, cleanly and lightly dressed, cropped nails, no rings, watches and bracelets, no hands skin disease or other acute illness (sore throat, rhinitis, fever, flu...)

<u>Client:</u> in the full body massage is after bath, nude and wrapped in a sheet. For partial massage he just washes the massaged area. Uncovered portion is only massaged.

<u>Position:</u> the client has to be the most relaxed. In lying position are massaged the limbs, back, abdomen, chest, and face. In sitting position is performed neck massage, head massage or massage of upper limbs.

<u>Massage agents</u> are used to reduce friction, are used non-irritating soap, oil, vaseline, emulsions with additives or face creams. Beware of allergies.

<u>Duration of massage:</u> is adjusted to its objectives and scope of the massaged area, of course to the extent and severity of the lesions.

General massage (full body massage)	50 – 60 min
Massage of the back, shoulders and neck	7 – 10 min
Massage of upper limbs	5 – 7 min
Massage of lower limbs	10 min
Neck and shoulders massage	5 – 10 min
Massage of abdomen	5 min
Massage of chest	3 – 5 min
Massage of joints	3 – 5 min
Head and face massage	5 – 10 min

Massage procedure for full body massage:

Upward: lower limbs from behind, back and shoulders, lower limbs from the front, abdomen, chest, upper limbs, neck and shoulders, (head and face)

Downward: The reverse procedure is chosen in the elderly and in people with elevated blood pressure.

The basic direction of touches is maintained in both modes.

<u>Direction of manoeuvres:</u> it has to be centripetal (towards the heart), to promote circulation and venous return of blood and lymph

- limbs effective pressure towards the heart, back is hand returned freely without pressure
- trunk transversely to the longitudinal axis of the body, but also in the longitudinal axis
- abdomen in the direction of peristalsis of the large intestine (right lower abdomen the ascending colon > the transverse colon > left lower abdomen the descending colon)
- neck from the header to the shoulders

<u>Massage techniques (manoeuvres):</u> Effleurage (stroking) Friction Petrisage (kneading) Tapotement (percussion) Vibrations Passive movements

Effleurage (stroking)

- manoeuvre affects large flat is used for processing the surface layers of the skin
- is used to preheat at the beginning massage
- is performed in four different ways:
 - o stroking with the palm of one hand
 - stroking with palms of both hands
 - o stroking with the thumb
 - stroking with the tips of the fingers
- at first the hand operates at little pressure then pressure is increased and by the end weakened, the pressure is exerted toward the heart and back the hand returns freely without pressure; the pressure decreases over the painful point
- effect of the manoeuvre: increased blood supply, accelerated blood and lymph circulation, and thereby speeding up exchange of substances in the tissues

Friction

- operates at more pressure on the deep-seated tissue to influence local muscle spasms
- ways of implementing:
 - friction with the palm
 - friction with the base of palm
 - friction with the place between your thumb and forefinger ("rider")
 - o friction with the joints of the fingers
 - friction with the internal surface of the fingers ("fork")
 - friction with the place between your thumb and bent index finger ("gutter")
 - friction with the thumbs
 - friction with the fingertips
- also affects the subcutaneous tissue, the tendons, the joint capsules, and thereby releasing exudates and sediments

Petrisage (kneading)

- used to process the muscles and muscle groups, which must be completely relaxed, otherwise kneading is not as effective
- manoeuvres are technically the most challenging but the most effective
- affects the blood and lymph circulation in the skin primarily, the subcutaneous tissues and the muscles by the method of application of manoeuvres

• manoeuvres

- <u>circular kneading</u>: the palms with the thumbs in abduction are placed abreast on the massaged part and we do the alternating opposite movements of the palms while shifting in cephalic direction
- <u>undulative kneading</u>: the fingers and the thumbs of both hands grip the muscle fold, which is processed by alternating antagonistic movements of the thumb of one hand and the fingers of the other hand while shifting toward the heart; the muscle fold looks like wave.
- <u>pinching</u>: we pinch/grip the muscle fold with the thumbs and the fingers of both hands, hold the while and let loose the fold quickly
- <u>rolling</u>: the massaged part is between the palms and we perform the alternating reversed movements of the palms to the longitudinal axis
- <u>pushing</u>: the alternating pressing with the palms, the fingers or the fists while shifting centripetal
- <u>Finnish kneading</u>: we grip the skin and the muscle fold with the palms or the fingers and our thumbs do spiral or zigzag movements "slalom"

Tapotement (percussion)

- the intensity of a manoeuvre will affect all layers of the tissues to the periosteum
- fundamentally manoeuvres are performed on the well relaxed muscles, otherwise the percussions are painful
- if we feel under the tapotement a hard resistance of the bones, we have to touch only lightly
- slight superficial tapotement calms, moderate percussion irritates, strong tapotement may attenuate the pain
- has got an effect on the distant body landscapes, which is caused by the reflexive way – tapotement of back adjusts and slows the heart rate and affects the secretion of digestive fluids

• superficial manoeuvres

- <u>clapping</u> (percussion with the palm)
- percussion with the handful
- o <u>sweeping</u>
- percussion with the pinch
- <u>punctuation</u> (with the tips of fingers)

• deep manoeuvres

- <u>beating</u> percussion with the fist:
 - soft (beat with the ulnar part of the fist)
 - hard (the hand is in the fist and in internal rotation/pronation)
 - with holding (one hand holds/pinches the muscle fold and the other hand makes beating with the fist)
- <u>plucking:</u> is quick alternating pinching of the muscle fold performed with the thumbs and the fingers of both hands
- o hacking:
 - soft (called in Czech "hand fan" is performed with the ulnar border of the hand and released fingers alternately)
 - hard (is performed with the ulnar border of the hand)

Vibrations

- requires a complete relaxation of the muscles; hence we give sometimes the limbs to other positions in order to achieve maximum relaxation
- an effect of vibration is reflective, operates not only in the massaged muscles, but also on the whole body
- slower and weaker vibrations have a relaxing effect:
 - gentle trembling by the palm
 - trembling by the fork
- quick and massive vibrations irritate:
 - o <u>shaking</u>

Dosage: is given by

- selection of manoeuvres and their sequence and intensity
- speed and number of repetitions of manoeuvres (2 3x) and their regularity
- duration

INDICATION OF CLASSIC MASSAGE

- 1. Diseases of the musculoskeletal system
 - vertebrogenic problems
 - chronic rheumatic diseases, including out-joint rheumatism (disorders of muscles, tendons and capsules, the initial stage of Dupuytren's contracture)
 - degenerative diseases (arthritis)
 - faulty body posture
 - deformation of the spine and chest
- 2. Conditions post-traumatic and post-operative
- 3. Diseases of the blood and blood vessels attention to contraindications
- 4. Diseases of the nervous system
 - o hemiparesis, paraparesis, plegia
 - o vertebrogenous pain syndromes
 - multiple sclerosis (even in the acute stage)
- 5. Internal diseases
 - respiratory diseases
 - o disorders of intestinal passage: atonic constipation (obstipation)
 - consequences of diabetes
 - \circ gout
- 6. Recovery, prolonged immobilization, muscle fatigue

CONTRAINDICATION OF CLASSIC MASSAGE

(without a prescription)

- 1. <u>Total:</u>
 - o osteoporosis
 - o haemorrhage
 - o advanced atherosclerosis
 - \circ fever
 - \circ infection
 - o acute inflammation
- 2. Local:
 - trophic skin disorder
 - injuries in acute stage <u>Abdomen:</u>
 - acute inflammation of abdomen: gallbladder, appendix...
 - o gallstones
 - o diarrhoea
 - obstipation after emptying
 - ulcer of stomach and duodenum <u>Lower limbs:</u>
 - o large varices
 - phlebitis (massage until 3 6 months after the resolution)

- o cachexia
- $\circ \quad \text{skin disease} \quad$
- \circ suppurative disease
- \circ tuberculosis
- o cancer
- o immediately after a meal
- \circ unhealed scars
- o birthmarks
- \circ ascites
- \circ enlargement of liver and spleen
- o large hernia
- \circ $\,$ retention of urine
- o cancer
- pregnancy and the puerperium
- inflammation of the genitals, menstruation, vaginal bleeding
- acute inflammation of joints, soft tissues and nerves
- o inflammatory swelling of joint

MASSAGE OF THE LOWER LIMB FROM THE FRONT

The client lies on his back (supine), the upper limbs are release along the body. The client should be relaxed. According to the client's wish, especially in the elderly, it is possible to shore the knees up in semi-flexion position. The masseur stays on side of the massaged lower limb at the lower third of the tibia or in the foot of the client.

Methodical procedure

- application of a massage agent
- effleurage (stroking) from the toes to the groin, the pressure is towards the heart, to reduce pressure over the patella and back freely without pressure; 3 5x
 - <u>with the palms of both hands</u>: the hands adjoin with the whole palm and the fingers to the front and side of the lower limb, taking the thumbs are over the centre line or go horizontally next to each other in parallel with lower limb
 - <u>with the palm of one hand</u>: the fingers go on the external side of the lower limb and the thumb encircles the front, the other hand fixates the lower limb above the heel
 - <u>with the palm of one hand alternately:</u> the hands cross the front and sides of the lower limb
- friction of the toes is performed with the thumbs of both hands from the dorsal side of the toes towards the metatarsophalangeal joints, the other fingers are on the plantar side of the toes; 3 5x
 - o <u>simultaneously</u>
 - o <u>alternately</u>
- friction between the metatarsal areas is performed <u>alternately with the</u> <u>thumbs of both hands</u> from the metatarsophalangeal joints centripetal, the other fingers and the palms fixate the foot; 3 – 5x
- friction of the dorsal side of the foot (fan) is performed simultaneously with the thumbs and the tenars of both hands, taking the palms adjoin to sides of foot, the other fingers fixate the foot, the thumbs are moving arcuately in cephalolateral direction; 3 – 5x

• friction of the foot sides

- <u>wilder "gutter"/"rider":</u> from the toes to the heel, the pressure is towards the heart, back freely without pressure; 3x
- \circ <u>circular with the ulnar sides of both hands</u>: from the toes spirally to the heel, the pressure is in cephalic direction; 3x

- friction of the foot the pressure from the metatarsophalangeal joints to the heel, back freely without pressure, one hand massage and the other hand fixate the foot in dorsal flexion; 3 – 5x
 - o <u>with the fist</u>
 - o with the palm
 - with the base of the palm
- friction of the ankle joint multiple touches are applied, which may make all consecutively
 - <u>double circular manoeuvre</u>: the tips of the 2nd to 4th finger of both hands are placed on the front of the ankle joint, which is circled by 3 - 4 moves out there – back
 - <u>cross manoeuvre</u>: both hands are placed with the thumbs in abduction above each other so that the thumb of one hand is above the ankle and the thumb of second hand is below (thumbs are horizontally). When we move the hands apart and to each other, the thumbs pass around the ankle and exchange their original position; 5 - 7x
 - <u>"rider"</u>: friction above the ankle joint with effective pressure in the cephalic direction; 3 5x
 - <u>"figure eight"</u>: the thumb of the inner hand is in abduction and is put below the external ankle, from there it goes through the front part above the internal ankle, here the thumb of the external hand takes movement and it goes from beneath the inner side of the ankle joint, across the front of part above lateral malleolus; 5x
- **friction of the tibia and the thigh** alternately both of hands centripetal at first with short and then long moves (the thumb of the lateral hand rubs arcuately the groin area)

• kneading

- <u>rolling of the toes</u>: reversed movement of the palms to the longitudinal axis of fingers; 5x
- <u>undulative kneading</u>: we massage the muscles on the inner and external side, the thigh in three lines, the fingers and the thumbs of both hands grip the muscle fold, which is processed by alternating antagonistic movements of the thumb of one hand and the fingers of the other hand while shifting toward the heart; 3x
- <u>circular kneading</u>: the palms with the thumbs in abduction are placed abreast on the massaged part and we do alternating opposite movements of the palms while shifting in cephalic direction; 3x
- <u>pinching</u>: we pinch/grip the muscle fold with the thumbs and the fingers of both hands, hold the while and let loose the fold quickly, the course of pinching is centripetal, the lower leg is massaged in two lines and thigh in three lines; 3x

- **tapotement** is performed in 2 or 3 lines
 - area of the tibia and the knee is omitted

– it is possible to alternate manoeuvres of kneading and percussion (when there is sufficient practice)

- not to forget occasionally rub the whole lower limb

- <u>clapping:</u> percussion of the palm
- percussion of the handful
- <u>beating</u>: percussion of the fist soft, hard and with holding the muscle fold
- o <u>sweeping</u>
- o <u>plucking</u>
- hacking: soft (hand fan), hard only on thigh
- **knee** the knee can be massaged separately, but it is necessary to first perform stroking from the mid-tibia to the mid-thigh concurrently or alternately and an intensive friction over the knee to release the blood and lymphatic vessels. Then there are other manoeuvres:
- <u>circular friction</u>: the fingertips make spiral movement on sides of the kneepan (patella)
- circular kneading: from the mid-tibia to the mid-thigh, we use light pressure; 8 10x
- <u>double circular manoeuvre:</u> the fingertips circle around the sides of the knee
- <u>friction of the sides of the patella</u>: little circular movements with the fingertips of both hands or with the thumbs and the fingertips of one hand
- <u>cross manoeuvre</u>: both hands are placed with the thumbs in abduction above each other so that the thumb of one hand is above the patella and the thumb of second hand is below (thumbs are horizontally). When we move the hands apart and to each other, the thumbs pass around the patella and exchange their original position; 5 - 7x
- <u>shortening and stretching of quadriceps femoris tendon</u>: the one palm is placed on the lower third of the thigh and the other palm is on the upper third of the tibia, 1x we stretch the tendon – the hands go apart and 2x we pluck with the tendon – the hands move closer to each other; 3x
- <u>dragging alternately</u>: the one palm is placed on the lower third of the thigh and the other palm is on the upper third of the tibia, the palms drag alternately the skinfold to the patella
- release of the patella: to the sides (later medial shift) and up down (cephalocaudal shift), grip: with the fingertips and the thumb of one or both hands
- <u>vibration of the patella</u>: to the sides (later medial trembling), grip: with the fingertips and the thumb of one or both hands
- **vibration** we perform the long trembling move with the palm from the toes to the groin

MASSAGE OF THE LOWER LIMB FROM BEHIND

The client lies on his belly (prone). His head is turned to the side, propped on the forehead or in the hole of the table. The upper limbs are release along the body. The tips of the feet are over the edge of a table or the lower legs are underpinned by cylinder. The client should be relaxed. The masseur stays from the side of the massaged lower limb at the lower third of the tibia or in the feet of the client.

Methodical procedure

- application of massage agent
- effleurage (stroking) from the heel over the buttock to the waist region, the pressure is towards the heart, to reduce the pressure over the popliteal and back we return freely without the pressure; 3 5x
 - with the palms of both hands: the hands adjoin with the whole palm and the fingers to the posterior (back) and the side of lower limb, taking the thumbs are over the centre line or go horizontally next to each other in parallel with the lower limb
 - with the palm of one hand: the fingers go on the external side of the lower limb and the thumb encircles the back, the other hand fixates the lower limb above the ankle
 - <u>with the palms of both hands alternately:</u> the hands cross the posterior and the side of the lower limb

Massage of the foot – masseur stays in the feet of the client. The massaged lower limb is <u>flexion</u> in the knee.

- friction of the foot the pressure is toward to the heel, back freely without pressure; one touch 3 5x
 - <u>with the fist:</u> the one hand massages and the other hand fixates foot from the dorsal side
 - <u>with the base of the palm</u>: the one hand massages and the other hand fixates foot from the dorsal side
 - <u>with the palm</u>: the one hand massages and the other hand fixates foot from dorsal side
 - with the thumbs and the tenars: at first alternately and then some moves together; the thumbs go from the toes to the heel and to the sides
 - o <u>drilling of the heel:</u> with IP1 joint of the index finger

Massage of the foot – the massaged lower limb is <u>extended</u>, the tip of the foot is over the edge of the table

- friction of the foot one touch 3 5x
 - circular with the ulnar sides of both hands: from the toes spirally to the heel, the pressure is in cephalic direction; 3x

- <u>kneading of the heel and its edges:</u> "basket" we interweave our fingers and grip the heel. We massage the heel with squeezing.
- rolling of the heel: the grip is the same ("basket"), but the hands go alternately
- <u>drilling of the heel:</u> with IP1 joint of the index finger
- friction of the ankle joint multiple touches are applied, which may make all consecutively
 - <u>double circular manoeuvre</u>: tips of the 2nd to 4th finger of both hands are placed on the front of the ankle joint, which is circled by 3 4 moves out there back
 - <u>"figure eight"</u>: the thumb of the inner hand is in abduction and is put below the external ankle, from there it goes through the front part above the internal ankle, here the thumb of the external hand takes movement and it goes from beneath the inner side of the ankle joint, across the front of part above lateral malleolus; 5x
- friction of the Achilles tendon from the heel to the transition tendon muscle with an effective pressure in cephalic direction; one manoeuvre 3 – 5x
 - <u>"rider"</u>
 - friction with the base of palm
 - o <u>"gutter"</u>
 - circular friction the sides of Achilles tendon
- friction of the calf, the thigh and the buttock with the palm of both hands alternately in cephalic direction; first you perform short and then long moves; the external hand goes first and ends till to the transition of the sciatic muscle (m. gluteus maximus) in the waist
- **kneading** is performed on the muscles of the lower extremity and the buttock (it is possible to massage the muscles of the calf with listed touches first and subsequently you work on the muscles of thigh and the buttock)
 - <u>undulative kneading</u>: we massage the muscles on the inner and external side, the thigh in three lines, the fingers and the thumbs of both hands grip the muscle fold, which is processed by alternating antagonistic movements of the thumb of one hand and the fingers of the other hand while shifting toward the heart; 3x
 - <u>circular kneading</u>: the palms with the thumbs in abduction are placed abreast on the massaged part and we do alternating opposite movements of the palms while shifting in cephalic direction; 3x
 - pinching: we pinch/grip the muscle fold with the thumbs and the fingers of both hands, hold the while and let loose the fold quickly, the course of pinching is centripetal, the lower leg is massaged in two lines and thigh in three lines; 3x

- **tapotement** is performed in 2 or 3 lines on the muscles of the lower limb and the buttock
 - area of the popliteal is omitted

- it is possible to alternate manoeuvres of the kneading and percussion (when there is sufficient practice)

- not to forget occasionally rub the whole lower limb

- <u>clapping:</u> percussion of the palm
- percussion of the handful
- <u>beating</u>: percussion of the fist soft, hard and with holding of the muscle fold
- o <u>sweeping</u>
- o <u>plucking</u>
- hacking: soft (hand fan), hard only on thigh
- **popliteal** can be massaged separately, but it is necessary at first perform stroking from the mid-calf to the mid-thigh concurrently or alternately and an intensive friction. Then there are other manoeuvres:
- <u>friction with the thumbs:</u> alternately or simultaneously
- friction with the base of the palm
- <u>"rider"</u>
- <u>circular friction</u>: the fingertips make spiral movement over the insertions of hamstrings
- \circ circular kneading: from the mid-calf to the mid-thigh, we use light pressure; 8-10x
- <u>double circular manoeuvre</u>: the fingertips circle around the sides of the knee
- cross manoeuvre: 5 7x
- <u>dragging alternately</u>: the one palm is placed on the lower third of the thigh and the other palm is on the upper third of the calf, the palms drag alternately the skinfold to the popliteal
- **vibration** we perform the long trembling move with the palm from the heel over the buttock to the waist

MASSAGE OF THE UPPER LIMB

Massage of the upper limb can be performed in two positions. The client lies supine, the massaged upper limb is in moderate abduction and the masseur stays from the side of the massaged upper limb. Or the client sits and the masseur sits from the massaged upper limb.

Methodical procedure

- application of massage agent
- effleurage (stroking) from the hand to the shoulder, the pressure is towards the heart, slight pressure over the cubital fossa and back we return freely without the pressure; 6 – 10x
 - with the palms of both hands alternately: the one hand massages and the other hand fixates the client's hand
- **friction of the fingers** each finger separately, the pressure is towards the heart, back without the pressure; each touch 3 5x
 - with the fork: one hand grips the last phalanx of the massaged finger and the other hand rubs the dorsal and palmar side and then lateral sides of the finger with the fork
 - with the tips of the thumb and the forefinger: one hand grips the last phalanx of the massaged finger and the tips of the 1st and 2nd fingers rub the dorsal and palmar side and then lateral sides of the finger
- friction of the dorsum of the hand one touch 3 5x
 - <u>friction between the metacarpal areas</u>: with the thumbs alternately or with the tips of the 2nd and 3rd finger together
 - with the thumbs and the tenars simultaneously (fan): it is a flat manoeuvre, the thumbs go till over the wrist
- friction of the palm one touch 3 5x
 - <u>friction between the metacarpal areas:</u> with the thumbs alternately
 - <u>with the thumbs and the tenars simultaneously (fan)</u>: it is a flat manoeuvre, the thumbs go till over the wrist
 - <u>with the base of the palm</u>: one hand massages, the other hand fixates the fingers, the pressure is towards the heart, back without the pressure
- friction of the wrist from the dorsal and ventral side, one touch 3 5x
 - with the thumbs: alternately
 - <u>"watch" cross manoeuvre:</u> the thumbs are placed parallely above each other (above and below the wrist), the hands go apart and to each other and the thumbs go around "the watch" and change their position
- friction of the forearm, the arm and the shoulder with both hands alternately, the pressure is in cephalic direction and the fingers go deeper between the muscle groups, non-massaging hand fixates the client's hand above the wrist. The deltoid muscle can be massaged with both hands together.

- friction of the upper limb with both palms simultaneously the client's hand is leaning on the masseur's hip or shoulder
- **kneading** is performed gradually from the hand to the shoulder in this order:
 - <u>rolling of the fingers:</u> reversed movement of the palms to the longitudinal axis of fingers, the client's fingers are between the masseur's palms; 5x
 - <u>"cutting" of the fingers:</u> reserved movement of the ulnar borders of the hands on the dorsal and palmar sides of the client's fingers and hand with concurrent shifting from the fingertips to the wrist, the masseur's hands are perpendicular to the longitudinal axis of client's fingers; 3x
 - <u>undulative kneading</u>: begins from the half of forearm and is performed in 2 lines; 3x
 - <u>circular kneading</u>: the palms with the thumbs in abduction are placed abreast on the massaged part and we do alternating opposite movements of the palms while shifting in cephalic direction; 3x
 - <u>pinching</u>: we pinch/grip the muscle fold with the thumbs and the fingers of both hands, hold the while and let loose the fold quickly, the course of pinching is centripetal; 3x
 - <u>rolling of the upper limb</u>: the client's bent upper limb is leaning with the hand on the masseur's shoulder, we massage the upper limb from the wrist to the shoulder with alternating movement of the palms
- **tapotement on the hand** the non-massaging hand fixates the client's hand above the wrist
 - percussion with the fist hard: on the palmar side of the hand
 - percussion with the fist soft: on the dorsal side of the hand
- tapotement on the forearm, the arm and the shoulder
 - percussion with the fist hard, soft and with holding of the muscle fold: from the half forearm (sufficient muscle mass)
 - percussion with the handful, the palm, plucking, sweeping and hacking soft: on the whole upper limb
 - hacking hard: we don't perform!!!
- **vibration** on the whole upper limb
 - shaking: we grip the client's hand with both hands and we shake it up-down
 - o gentle trembling: with the palm a the fingers from the hand to the shoulder

MASSAGE OF THE BACK

The client lies on his stomach. His head is resting on the right/left side of his face. The client puts his head into the hole in table and rests on the forehead, if this position is unsatisfactory and if the table with a hole is available. Otherwise, it is possible to underlay his forehead and the upper chest. It is suitable to underlay the lower part of the lower leg with roller or pillow so that the tips are freely over the edge for greater comfort and relaxation. The masseur stands alternately on the right and left side.

Methodical procedure

- application of massage agent
- effleurage (stroking)
 - with the palms: the hands go simultaneously, the pressure is there-back, you rub not only the spine, but also the shoulders and the sides of the chest, you can circle over the shoulder blades; 5x
 - with the palms and with the fists: the palms with the fingers in abduction go in waves simultaneously from the first thoracic vertebra to the pelvic and back to the top the hands are in fists, you rub even sides of the chest; 5x

• friction

- <u>friction of the shoulders and the shoulder blades</u>: the palms are placed in area Th1, the fingers are directing diagonally upwards to the sides, procedure is from the spine to the sides in the form of a centrifugal spiral, the pressure is at first with tenars and along the sides with the palms and with the fingers, back without pressure; the next move begins below and we end under line of the shoulder blades
- <u>friction of the shoulder blades</u>
 - with the palms: circular movement over the entire surface of the blades, touch can be merged with friction of the back
 - circular friction with the fingertips around the scapula: position of masseur's hands the hand on the hand, the right hand rubs the right blade and the masseur stands on the left side. The manoeuvre begins in upper part of the vertebral edge of the shoulder blade, the hands go in the form of a centrifugal spiral (the circles are towards the blade) along the upper edge of blade above spine of the blade to the acromion, next in the axilla along the lateral edge of the scapula back to the starting point.
- transverse friction of the back and sides of the chest
 - with movement of the palms in the same direction: the masseur stands from the non-massaging side, the hands massage alternately in the same direction from side toward the spine
 - with alternating movement of the palms: the masseur stands from nonmassaging side, we can massage in 2 lines (the back and side) in caudal direction

- <u>friction of the intervertebral and the intercostal spaces</u>: the thumbs are placed next to each other to the spine and we move them laterally, the movements are short in the upper and the lower part of back, the thumbs go down to the sides of the chest below the lower blade angle in the intercostal areas, the procedure is in a caudal direction to the sacrum
- <u>friction of the paravertebral muscles</u> the procedure is in cephalic direction
 - with the joints of the fingers: the hands in fist are placed near the spine (the palms are in contact) in the Th1 level and we massage the paravertebral muscles in transverse direction with the joints of the fingers with short moves to the sides (the palms are still in contact); (or it is possible to use short rotational movement – the little fingers go apart, forefingers and thumbs are still touching)
 - with the fingertips: position of the hands the fingers between the fingers are placed on the paravertebral muscles in the upper thoracic area and we massage the muscles in longitudinal and transverse direction with alternating movements of hands with concurrent shifting
- the longitudinal friction of the back with the fist or with the bases of palms: the manoeuvre is performed from the upper thoracic part of spine to the sacrum and back; at the beginning the fists perform percussion, next we rub and in the end we move the fists flexibly away, reverse movement – at first the fists perform percussion followed by friction and move away. It is a combination of tapotement and friction. The pressure is in both directions. The touch is not performed over the soft tissues of the trunk – it means, don't massage the sides of trunk.
- <u>ridge/spine manoeuvre</u>: it is the longitudinal friction of the back with fist, with the palms or with the base of palm in the lines. The starting point is the sacral bone, the 1st move is along the spine, the 2nd move is to the shoulders, the 3rd move is into the axillary
- **friction of the sacrum** from the sacrum in cephalic direction
 - with the thumbs: alternately and simultaneously
 - <u>circular friction</u>: with the fingertips and with the thumb (moves are performed over the SI joint, between SI joint and the middle line, over the middle line)
- **kneading** in 2 3 lines on each half of the back (in paravertebral, scapular and back axillar line)
 - o <u>undulative kneading</u>
 - <u>pushing with the fist:</u> the alternating pressing with the fists, the pressure increases and decreases gradually

• tapotement

- percussion with the fist (beating) soft, hard
- o percussion with the handful, with the palm (clapping)
- <u>sweeping</u>, <u>plucking</u>, <u>hacking</u> soft
- <u>hacking hard</u>: only once and we don't perform it over the scapulae

• massage of the buttock

- o <u>kneading</u>
 - <u>undulative kneading</u>
 - pinching
- o <u>tapotement</u>
 - percussion with the fist (beating) soft, hard and with the holding muscle fold
 - percussion with handful, with palm (clapping)
 - sweeping, plucking, hacking soft
- **vibration** in a caudal direction
 - <u>with the fork:</u> along the spine above the paravertebral muscles
 - with the palm: we end on the buttock

MASSAGE OF THE NECK

The client sits and the masseur stands behind him. The majority of the manoeuvres go from the header to the shoulders.

Methodical procedure

- application of massage agent
- **effleurage (stroking)** with the palms from the header to the shoulders, the pressure is toward the shoulders and back without the pressure.

• friction

- <u>circle friction</u>: this manoeuvre is the same like circle kneading. We massage at first one side and then other side.
- <u>circle friction with the ulnar border of the hands</u>: from the header to the shoulders.
- <u>friction with the fork:</u> we massage the paravertebral muscles of the cervical spine with little circles from the header to the area of the upper thoracic spine. <u>Fixation of the head:</u>
 - the masseur stands behind the client and non-massaging hand fixates the top of the head
 - the masseur stands on the side and client's head is leaning against the masseur's forearm
 - the masseur stands on the side, embraces the client's head around the forehead and temporal bone and fixates the head on his chest – the client sits upright and his head is released
- <u>friction of the intervertebral areas</u>: is perform with the thumbs, which are moved in intervertebral areas to the sides from the header to the upper thoracic spine
- <u>friction of the trapezius muscle</u>: the hands are put on the shoulders, the fingers point forward and the thumbs back to the spine. The thumbs alternately massage the middle and upper portions of the trapezius muscle. The pressure is gradually increased.
- <u>friction of the suprascapular muscles</u>: little circular movements are perform with the fingertips from the spine to the shoulder. The pressure is intensive. If we find trigger point, we stay here and massage this place.

• kneading

- o <u>undulative kneading</u>
- o <u>circle kneading</u>
- <u>"rider":</u> the first interdigital area slides on the neck, head fixation can see above
- **tapotement** is perform from the header to the shoulder and from the one shoulder to the other shoulder
 - percussion with the fist (beating) soft, hard
 - percussion with the handful, with the palm (clapping)
 - o sweeping, plucking, hacking soft

- hacking hard: we don't perform
- <u>drilling between the shoulder blades:</u> with IP1 joint in the area of the paravertebral muscles, not under the bone

• vibration

- <u>with the fork:</u> along the spine from the header to the upper thoracic spine
- <u>with the palms:</u> from the header to the upper thoracic spine, from the shoulders diagonally to the spine

MASSAGE OF THE CHEST

The client lies on his back, the upper limbs are in a slight abduction. The masseur is on the right side. We don't massage the breast area in women, the nipples in men.

Methodical procedure

- application of massage agent
- **effleurage (stroking)** we don't perform
- friction
 - friction of the chest and the shoulders: is perform with the palms. The starting point is the sternum, the hands are situated parallelly to the sternum, the fingers point to the neck. The 1st move is along the sternum to the clavicles and to the shoulders, the 2nd move is to the axillas and the 3rd move is to the sides of the chest. The pressure is in cephalic direction, back without the pressure; 3x
 - o friction of the shoulders: with the palms separately
 - <u>friction of the chest with the palms to the sides</u>: the palm is moving from the sternum to the side of the chest, back we lift the hand and second palm perform the same move. The hands go from axillas to the costal arches. The masseur stands on the non-massaging side; 3x
 - <u>circle friction of the side of the chest</u>: the masseur stands on the nonmassaging side, the palms massage the side of the chest from the axilla to the costal arch with alternating move
 - <u>friction of the intercostals areas with fingertips of the thumbs</u>: from the sternum to the sides in caudal direction. We stay off the breast area in women and the nipples in men.
- **tapotement** we omit the breast area in women and the nipples in men
 - <u>hacking soft</u>
 - o <u>sweeping</u>
 - beating with the fingertips
- **vibration** <u>in area if the heart:</u> we put the right hand on the left side of the chest at the site of the cardiac apex, the hand moves to centerline under intensive shaking

MASSAGE OF THE ABDOMEN

The client lies on the back with bent lower limbs to achieve complete relaxation of the abdominal wall. The client should be voided and emptied before the massage. The client does not talk during the massage. The masseur stands on its right side.

The masseur always asks the client for any circumstances that might be a contraindication to massage of the abdomen. We can massage the belly with small hernias, but intense touches must be mild, we don't perform the pushing of the abdomen, and if it is necessary, the masseur holds the hernial gate by the hand – especially with some manoeuvre of the kneading.

Methodical procedure

- application of massage agent
- **effleurage (stroking)** is performing in the direction of the colon (in a clockwise direction) with the palms and the fingers, the hands alternate; 8 10x
- friction
 - circle friction with the fingertips: position of the hands: the hand on the hand, procedure is in the direction of peristalsis; we repeat this touch 3 times, while the pressure is gradually increased and the fingers are progressively pushed into the depth it is necessary to release the pressure over the bladder. If we used an excessive pressure, the client contracts the abdominal wall, that's why we must decrease the pressure.
 - <u>transversal friction</u>: the palms with alternating movement massage the whole abdominal wall from the symphysis to the costal arch on the right side and from the costal arch to the symphysis on the left side.
 - <u>sigmoid friction of the stomach</u>: is performed with the right hand, which is put on the left costal margin and we rub the stomach area with S-shape move.

• kneading

- <u>undulative kneading</u>: is performed in the longitudinal direction in two lines on the each half of the abdomen, we proceed in cephalic direction on the right half and in caudal direction on the left half of the belly.
- <u>pushing with the fist</u>: the alternating pressing with the fists in the direction of the peristalsis. The pressure increases and decreases gradually. We omit the area of the urinary bladder; 3x
- <u>pushing with the palms</u>: in longitudinal direction the palms are putting on the left and right half of the abdomen. In transversal direction the palms are putting under and below the navel.
- tapotement is performed in multiple lines while maintaining the direction of peristalsis
 - o <u>hacking soft</u>
 - o <u>sweeping</u>
 - o <u>plucking</u>
 - beating with the fingertips

 <u>"throwing across</u>": this is an opposed motion of the hands across the abdominal wall so that the hand going from the masseur glides on dorsal side of the hand and the hand going to the masseur slides on the palmar side of the hand

• vibration

- <u>with the fork:</u> is performed in the middle between the navel and the symphysis
- with the palm: in the direction of the peristalsis, we tremble in multiple lines in bulky bellies (the right half of the belly from the bottom up, the left half in reverse)

MASSAGE OF THE HEAD

The client sits on the chair and the masseur stands behind him or on the side. The hairy part of the head is covered with a towel, which is holding with the client's hands. This helps us to prevent a potential getting out hair and a massage agent is not necessary. Massage of the head lasts 3-4 minutes.

Methodical procedure

- circular kneading the procedure is from the forehead to the shoulder; 3times and the other side
- **beating with the fingertips** across the scalp for about half a minute
- the transversal and the longitudinal shortening and stretching of the scalp is perform with both hands, that are less than one palm's width apart, 2 times shorten and once stretch
- **little circular movements with the fingertips** without a towel, the fingers are loosely in the hair and we move with the skin against the base

FACE MASSAGE

The client lies on his back and the masseur stands or sits behind him.

Methodical procedure

- preheating of the face with warm water
- application of massage agent and preheating with the palms
- **friction with the fingertips** from the middle to the sides
 - o <u>plain move</u>
 - o <u>circular movement</u>
 - <u>forehead:</u> with the fingertips or with the thumbs, the manoeuvre ends with circle on the temporal bones
 - the supraorbital arcs: with the fork
 - the nose: in the upper part transversely to the longitudinal axis
 - around the eyes, the external corner: the upper eyelid and the lower eyelid separately or together with the fork
 - <u>above the upper lip:</u> with one finger
 - <u>the edge of the chin and lower jaw</u>: with the fork
- **friction with the palms and with the fingers** from the clavicles towards to the chin
- **undulative kneading** the forehead, the cheeks and the chin
- **tapotement** with the fingertips
 - o <u>beating</u>
 - o <u>plucking</u>
 - <u>sweeping</u>

• vibration

- with the fork: the supraorbital arcs, the edge of the chin
- with the pinch: the other parts of the face
- vibration of the larynx: with the thumb and forefinger transversely
- with the palms: from the clavicles to the chin and to the forehead
- **friction of the face** from the clavicles to the chin and from the middle to the sides

SELF-MASSAGE

The self-massage is a way of massage, when the masseur and the massaged individual work in one person. The self-massage has got the same system of massage manoeuvres, the same effects and uses the same massage agents as a classic massage. The hygiene rules, the indications and the contraindications are also identical, that's why we do not consider self-massage as a special kind of massage.

It differs from the classic massage with a practical implementation. This naturally results from the fact that the individual massages itself – there are used different positions, modified procedures of manoeuvres, some parts cannot be massaged (e.g. greater part of the back).

To certain restriction is the fact that massage is a strenuous manual activity, therefore it cannot be used to eliminate overall fatigue or after previous intensive load of the upper limbs. The advantage of the self-massage, compared to classic massage, is its immediate availability.

THE LOWER LIMB

- **effleurage** standing with feet apart slightly, stroking with the palms from the ankle to the groin
- friction of the foot sitting, the massaged lower limb is bent and in external rotation
 - with the fist, with the palm: the other hand fixates the instep (the dorsal side of the foot = dorsum)
 - <u>with the fingertips of the thumbs:</u> the other fingers fixate the dorsum and the thumbs perform the circle movements from the heel to the metatarsal joints alternately or together

Position: sitting – the massaged lower limb is bent and leaning against the sole

- **friction of the dorsum** the pressure from the fingers to the lower leg, back without the pressure, we perform the plain move, the circle movements are used at swelling
 - with the fingertips: one or both hands
 - <u>with the thumbs:</u> alternately, the fingers are from below the sole
- friction of the ankle joint
 - double circular manoeuvre: with the fingertips
 - <u>"figure eight"</u>: with the thumbs
- **friction of the Achilles tendon** the pressure is in the cephalic direction, back without the pressure
 - with the fingertips: plain move, circles
 - <u>"gutter"</u>
- **pushing of the Achilles tendon with the thumbs** the tendon is between the fingertips of the thumbs, the thumbs are horizontally above each other and we perform movement of hands together and thereby we shape the letter "S"
- **friction of the calf** with the palms alternately, the pressure is in the cephalic direction, back the hand goes freely and the other hand massages

- kneading of the calf
 - <u>undulative kneading:</u> from the external and internal side
 - o circular kneading
- vibration of the calf with the palms from the ankle to the popliteal
- **friction of the tibia** with the palms alternately, simultaneously, the pressure in the cephalic direction

Position: sitting – the massaged lower limb is straight

- friction of the knee
 - o with the palms
 - with the fingertips around the patella: plain move, circles
 - <u>"cross manoeuvre"</u>
- **friction of the thigh** with the palms alternately, the pressure to the heart
- friction of the fascia lata the external side of the thigh in cephalic direction
 - with the palm: plain move
 - with the fingertips: circles
- **kneading of the thigh** the ventral side of the thigh: the lower limb is straight, the dorsal side of the thigh: the lower limb is bent and leaning against the sole
 - o <u>undulative kneading</u>
 - o <u>circular kneading</u>
 - o <u>pinching</u>
- vibration of the thigh with the palm

THE BUTTOCKS

Position: standing

- **effleurage** <u>with the palms</u> we perform the circles from the tuber ischiadicus to the coccyx, to the sacrum to the trochanter and back to the tuber ischiadicus
- friction with fingertips, plain move or circles in cephalic direction
- kneading undulative kneading
- **tapotement** <u>beating soft</u> with one or both hands
- vibration with the palms or friction/effleurage

THE ABDOMEN

Position: lying on the back, the lower limbs are bent

- **effleurage** <u>with the palm</u> in direction of the peristalsis
- friction in direction of the peristalsis
 <u>circular friction with fingertips</u>
- **kneading** <u>undulative kneading</u> in the circle or the right side in two lines from bottom to top, the left side oppositely
- **tapotement** <u>beating with the fingertips</u>
- vibration with the palm or friction/effleurage in direction of the peristalsis

THE NECK

Position: sitting

- **effleurage** <u>with the palm</u> from the header to the shoulder, the pressure to the shoulder, back without the pressure
- **friction** <u>with the fingertips</u> plain move or circles on the upper edge of the trapezius muscle
- kneading of the trapezius muscle the fingers against tenar
- vibration with the palm or friction/effleurage from the header to the shoulder

THE LOWER BACK

Position: standing

- **effleurage** the circle from the sacrum along the spine, to the sides back to the sacrum
 - o <u>with the palms</u>
 - with the backs of the hands
- **friction of the paravertebral muscles** <u>with the fingertips</u> plain move or circles in cephalic direction
- **kneading** <u>undulative kneading</u> along the sides
- friction/effleurage

THE UPPER LIMB

Position: sitting, the upper limb is freely leaning against the palm

- effleurage with the palm, one move is along dorsal aspect, the second move is along ventral aspect, the pressure is in cephalic direction, back without the pressure
- **friction of the fingers** <u>with the fork</u> from the dorsal-palmar side, from the lateral-medial sides
- **friction of the back of the hand** <u>with the fingertips</u> or <u>with the surface of the fingers</u>, the pressure to the heart
- friction of the palm with the palm, with the base of the palm, with the fist
- **friction of the forearm** with the palm from the dorsal and ventral aspect
- friction of the elbow with the palm, the upper limb is bent
- friction of the arm
 - <u>with the palm</u>: along the dorsal aspect (m. triceps brachii)
 - <u>with "the rider"</u> or <u>with the palm</u>: along ventral aspect (m. biceps brachii)
 - o with the palm or with the fingertips m. deltoideus
- **kneading of the upper limb's muscles** the fingers against the tenar in the cephalic direction
- friction or vibration with the palm

SPORTS MASSAGE

History

Massage manoeuvres and agents

Manoeuvres and massage agents of sports massage are identical for classic massage.

Contraindications of the sports massage

- 1. Total for healthy sportsman
 - $\circ\,$ extremely tired and exhausted athlete massage is performed until the following day
 - after a hearty meal massage is perfomed after 3-4 hours
- 2. Total in disease states
 - see classic massage
- 3. Local for healthy sportsman
 - \circ $\,$ axillas, elbow and popliteal fossas, the area of groin $\,$
 - \circ breast in women
 - \circ neck front
 - area of genitals
 - $\circ\;$ the places where they are stored just under the skin edges of bones and spines vertebrae
 - o during menstruation and pregnancy
- 4. Local in disease states
 - See classic massage

Types of the sports massage

Massage removing tiredness

Massage technique is the same as the classic massage. We dedicate more muscles impaired with fatigue – friction.

Emergency massage

Emergency massage is used to "tune" the athlete prior to the performance. The training program is not used it. The massage is done shortly before sports performance and in a broader sense, it can be included into warm-up. However, it can not accurately determine whether it should be performed before or after the warm-up, or before the sports performance.

The massage is individual with respect to carried out sports and individuals, can be either tonifying or calming nature.

Characteristic of massages

Tonifying massage quick great various irregular all irritable

Calming massage

slow small centripetal regular without tapotment not an irritable

Methodical procedure

Emergency massage of LL from behind – lying on the stomach

- friction with the palms centripetal and centrifugal
- undulative kneading on the calf, the thigh and the buttocks
- friction of the fascia lata with the palm, the base of palm or with the fingertips
- tapotment on the calf and the thigh clapping, hacking soft, plucking or sweeping
- friction

Emergency massage of LL from the front – lying on the back

- friction of the whole LL or friction of the thigh
- friction of the ankle joint figure eight, double circular manoeuvre, cross manoeuvre or rider
- friction of the knee circular, double circular manoeuvre, cross manoeuvre
- friction of the fascia lata with the palm, the base of palm or with the fingertips
- undulative kneading on the thigh
- vibration rolling, with the palms
- friction

Emergency massage of LL shortened – lying on the back, sitting on the bench

- friction LL is bend, friction of the whole LL from behind and from the front, the buttock is omitted
- friction ankle, knee, fascia lata
- kneading undulative
- tapotement clapping, hacking soft, plucking or sweeping
- vibration rolling
- friction

Emergency massage of UL – sitting

- friction with the palm from external and internal side of the whole UL
- friction of the elbow, m. biceps brachii, m. triceps brachii, m. deltoideus with the palm, fingertips or rider
- tapotement hacking soft, plucking
- slow and quick rolling and trembling of UP
- friction

Emergency massage of the back – prone lying or standing by leaning against a wall of folded hands under forehead

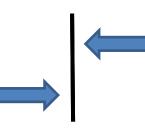
- friction with the palms
- friction with the base of the palm (along the spine or diagonaly to the sides), with the palms (along the spine), ridge/spine manoeuvre, with the fingertips on the paravertebral muscles (fingers between fingers)
- undulative kneading
- tapotement clapping, hacking soft, plucking or sweeping
- friction

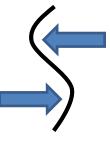
MASSSAGE OF SCARS

Scar

- heals 3 weeks (if they are not complications): during this period DO NOT TOUCH at the scar
- stitches are extracted according to the localization and healing from the 5th to the 14th day: after removal sutures may be treated tissue surrounding the scar
- therapeutic options:
 - pressure massage of scars and surroundings: the ball of your thumb or finger gently push inward (dimple is created) and we perform slow circular movements under constant pressure to the skin move against the base. It is not a surface friction.
 - <u>soft tissue techniques:</u> it is stretching of the skin and other layers (the subcutaneous tissue, the fascia, the muscle)

– **"S**": the thumbs are placed perpendicular to the scar above the other, during movement the hands go to each other and the scar is stretching in an S-shaped

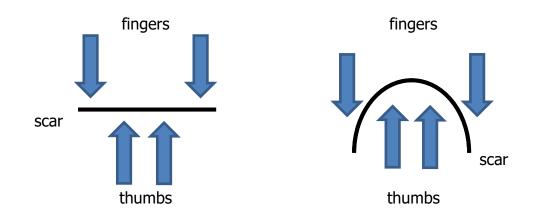




thumb scar thumb

thumb scar thumb

- **"C**": the scar is between your thumbs and fingers, during movement thumbs go against other your fingers and the scar is stretching in C-shaped



supportive therapy: ointments and creams (the best are lard, "Indulona blue", cream with Marigold Medically - attention of allergies), physical therapy – phototherapy (laser, bioptron lamp, biostimul), indrawn scar – kineziotape

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