

AND

# INSTRUCTIONS FOR THE

# MEDICAL EXAMINATION OF RECRUITS

FOR THE

### CANADIAN EXPEDITIONARY FORCE

AND FOR THE

#### ACTIVE MILITIA OF CANADA

1917

#### OTTAWA

PRINTED BY J. DE L. TACHE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1917

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# PHYSICAL STANDARDS

AND

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# RULES FOR THE MEDICAL EXAMINATION OF RECRUITS.

The decision as to physical fitness rests entirely with the Medical Officers concerned in the examination of recruits. Recruits, after passing preliminary examination by the local medical officer, must be declared "physically fit" by a duly appointed Medical Board.

#### PRINCIPAL POINTS IN MEDICAL EXAMINATION OF RECRUITS.

In the inspection of recruits the principal points to be attended to are:-

That the recruit is sufficiently intelligent.

That his vision with either eye, is up to the required standard.

That his hearing is good.

That his speech is without impediment.

That he has no glandular swellings.

That his chest is capacious and well formed and that his heart and lungs are sound. That he is not ruptured in any degree or form. That his limbs are well formed and fully developed.

That there is free and perfect motion of all joints.

That the feet and toes are well formed. That he has no congenital malformation or defects.

That he does not bear traces of previous acute or chronic disease pointing to an impaired constitution.

That he is between the ages of 18 and 45 years.

General Grounds for Rejection.-Men presenting any of the following conditions will be rejected :-

Indication of tubercular disease; constitutional syphilis; bronchial or laryngeal disease; palpitation or other diseases of the heart; generally impaired constitution; under standard of vision; defects of voice or hearing; pronounced stammering; contraction or deformity of chest or joints; abnormal curvature of spine; defective intelligence; hernia; hæmorrhoids; marked varicose veins or varicocele; inveterate cutaneous disease; chronic ulcers; fistula; traces of corporal punishment; or any disease or physical defect calculated to unfit them for the duties of a soldier.

N.B.-Varicocele will be considered severe when the mass of veins is so great that it hangs down in front of the testicle when the candidate stands up or if the cord is so elongated that the testicle hangs abnormally low.

Mental Capacity .-- Great care is to be taken in ascertaining the mental capacity of a recruit.

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**Correlation of height, weight, chest measurement and age.** —The height, weight and chest measurement of a recruit should accord with each other, and with his age, agreeably to the table of standards laid down in the Recruiting Regulations. So far as concerns weight, this table is to be regarded as a guide only, and the medical officer is to exercise his own judgement as to the general fitness of the man under examination.

Determination of Age by Physical Development.—Should a recruit, on presenting himself for enlistment, bring no satisfactory proof of his age, the medical officer who examines him will, by comparing the height with the weight and general development, and also from the recruit's appearance, decide his age, which will be entered on the second page of the attestation "apparent age."

**Position of recruit.**—When not required to approach the recruit for special objects, the medical officer should always take his place at a distance of about six feet from him. The recruit should be placed so that the light may fall upon him.

Directions for general examination, and objects. — The recruit having, if possible, had a bath, or been washed, and being wholly undressed, the following should be the order in which the examination is carried out:—

He is measured under the standard. He is weighed. His chest measurement is taken. His vision is tested.

If he satisfies requirements in these respects, and appears otherwise eligible, the general examination will be thus proceeded with:—

He is directed to walk up and down the room smartly two or three times, to hop across the room on the right foot, and back again on the left. (The hops should be short and upon the toes.)

He is halted, standing upright, with his arms extended above his head, while the medical officer walks slowly round him carefully inspecting the whole surface of his body.

An estimate is formed of the general physique, of his age, and whether he presents the appearance of having served before.

The objects to be observed and noted in this part of the examination are the following:—The general physical development; the formation and development of the limbs; the power of motion in joints, especially in the feet and hips; extreme flatness of the feet; formation of the toes; skin disease; varicose veins; cicatrices of ulcers; and any special marks from congenital or accidental causes, and tattoo marks. If no disabling defects are found, the second part of the examination will be proceeded with.

Examination of the trunk.—The trunk will be examined from below upwards. The recruit stands with his arms extended above his head, the backs of the hand being in contact. The following will be the order of inspection:--

- The medical officer notes indication of venereal disease. He examines the scrotum to ascertain if the testicles
- have descended and are normal, or if there be varicocele or other disease.
- He inserts the point of his finger by invagination of the scrotum in the external abdominal ring of each side, and desires the recruit to cough two or three times, to ascertain if he be ruptured or liable to the condition.
- He examines the abdominal walls and parietes of the chest.

**Examination of the chest.**—He desires the recruit to "take in a full breath" several times, while he watches the action and notes the capacity of the chest. Careful stethoscopic examination of lungs is made.

He examines the action of the heart, and notes its sounds.

The upper extremities.—The examination of the upper extremities will be made from below upwards. Time is saved by the medical officer himself acting as well as telling the recruit the movements he desires to be made.

The following are the directions :-

Stretch out your arms with the palms of your hands upwards.

Bend the fingers backwards and forwards.

Bend your thumbs across the palms of your hands.

Bend your fingers over your thumbs.

Bend your wrists backwards and forwards.

Bend the elbows.

Turn the backs of the hands upwards.

Swing your arms around at the shoulders.

Marks of vaccination.—The medical officer will examine the recruit for marks of vaccination.

This comprehends the inspection for loss or defects of the fingers, thumbs, wrists, elbows and shoulder joints; power of rotating the forearm, and vaccination. If not vaccinated, the circumstance should be stated on the medical history sheet.

The lower extremities and back.—The inspection of the lower extremities and back will be made from below upwards. The recruit first faces the medical officer, afterwards turns his back to him.

The following are the directions given facing :----

Stand on one foot, put the other forward.

Bend the ankle-joint and toes of each foot alternately backwards and forwards.

Kneel down on one knee.

Up again.



Down on the other knee. Up again. Down on both knees, and up from that position with a simultaneous spring of both legs. Turn round. Separate the legs.

Touch the ground with the hands.

While the recruit performs these movement the medical officer will observe the action of the knee-joints, the conditions of the perinaeum and of the spinal column. This includes the inspection for defects of the toes, ankle and kneejoints; for haemorrhoids, prolapsus ani, fistula in perinaeo and spinal deformity.

The head and neck.—The examination of the head and neck will be made from above downwards. The medical officer will note the intelligence, character of voice and power of hearing of the recruit by his replies to the questions put to him. The following are the directions:—

- Have you had any blows or cuts on the head?
- Are you subject to fits of any kind?
- He examines the scalp.
- He examines the ears.
- He examines the nostrils.
- He examines the mouth, teeth, palate and fauces and then tells the recruit to say loudly "who comes there?"
- He examines the neck.

This comprehends the inspection for injuries of the head, deafness, disease of the ears, defect of voice; polypus of nose; tubular -ulceration; glandular enlargements and defects of the eyes and the teeth.

**Teeth.**—An examining officer should not reject a recruit on account of the condition of his teeth, provided that the physical condition of the recruit is good in other respects. The condition of the mouth will receive attention from the C.A.D.C. subsequent to enlistment.

The following are the instructions for the measurement of recruits :--

Height.—The recruit will be placed against the standard with the feet together, and the weight thrown on the heels, and not on the toes or outside of the feet. He will stand erect, without rigidity; and with the heels, calves, buttocks and shoulders touching the standard; the chin will be depressed to bring the vertex of the head level under the horizontal bar and the height will be noted in parts of an inch to eighths.

**Chest.**—The recruit will be made to stand erect with his feet together, and to raise his arms over his head. The tape will be carefully adjusted round the chest with its posterior upper edge touching the inferior angles of the scapulae, and its anterior lower edge, the upper part of the nipples. The

arms will then be lowered to hang loosely by the side, and care will be taken that the shoulders are not thrown upwards or backwards so as to displace the tape. The recruit will then be directed to take a deep inspiration several times, and the maximum expansion of the chest will be carefully noted. It is often attempted to concear the true minimum measurement, but it can be obtained by a little manipulation and by drawing off attention from the examination by a few questions.

The maximum expansion rarely exceeds the average minimum by more than 2 or 2<sup>1</sup>/<sub>4</sub> inches.

The maximum and minimum will be recorded thus:--

- 34 33 etc.
- -
- 361 35

In recording the measurements, fractions of less than half an inch should not be noted. The maximum is the standard measurement, and a recruit must also reach the range of chest expansion laid down in the table of physical equivalents.

Vision.-(See Appendix I.)

Hearing.-(See Appendix II.)

#### Nasal conditions.-(See Appendix III.)

Standards for chest measurement.—At least 33 inches around the chest, if between 18 and 30 years of age, and 34 inches around the chest if between 30 and 45 years of age.

Height.—At least 5 feet in height for infantry, 5 feet 4 inches for Artillery and Cyclists Corps, and 5 feet 2 inches for other Corps.

#### CANADIAN ARMY MEDICAL CORPS-CANADIAN ARMY DENTAL CORPS.

#### Construction, Pioneer, Labour and Forestry Battalions and Sections Skilled Railway Employees.

Age.—Upper age limit 48 years, but the apparent age rather than the age given is to be taken into account, and the condition of the arteries of all men of 41 years of age and over is to determine acceptance or rejection.

Lower age limit.—The apparent rather than the stated age is also to be carefully noted in those near the lower age limit. Particular care must be taken to reject those who, while stating, or affording proof, that they are over the lower age limit (18 years), present, nevertheless, a physical development below the normal for that age period.

Height.-The minimum height accepted is 4 feet 11 inches.

Chest measurement and expansion.—These must be proportioned to the height.

#### Standard of vision.-(See Appendix I.)

Hearing.—(See Appendix II.)

Nasal conditions.—(Appendix III.)

Loss of fingers.—Men may be accepted who have lost one or two fingers of either hand, if the examining medical Board considers that the recruit is not thereby incapacitated from active manual labour.

Lost of toes.—Men may be accepted who have lost one or two toes from either or both feet, provided the great toes are intact.

Flat foot.—A moderate degree of flat foot will not constitute cause for rejection. Care is to be taken to determine whether the condition is genuine flat foot (i.e., due to giving way of the arch of the foot) or no, either by X-ray examination or by the test of a five-mile march. Many so-called cases of flat foot are due to filling in of the arch by development of the plantar muscles.

Whenever a man is passed for service, who has some physical defect, the nature of that defect, or minor disability and its apparent extent must be noted in full detail upon his Attestation Paper.

No man is to be accepted who affords a history or evidence of (a) Epilepsy, (b) Tuberculosis, (c) Insanity or (d) Acute Rheumatic Fever or Acute Endocarditis.

#### APPENDIX I.

#### STANDARDS OF VISION.

In examining a recruit's vision he will be placed with his back to the light, and his visual acuteness will be tested by means of test types placed in ordinary daylight, at a distance of twenty feet (six metres) from the recruit. The visual acuity of each eye in the case of approved recruits will be entered on the Medical History Sheet. If vision can be improved by glasses they should be ordered and worn.

Any morbid condition of the eyes or lids of either eye, liable to risk of aggravation or recurrence, will cause the rejection of the candidate.

- Standard I.—If a recruit can read D-80 at 20 feet or better with each eye, without glasses, he will be conconsidered "FIT."
- Standard II.—If he can read D-80 at 20 feet with the right eye, without glasses, and not less that D-200 at the same distance, with the left eye, without glasses, he will be considered "FIT."
- Standard III.—If a recruit can read D-80 at 20 feet with one eye, without glasses, and his right eye can be brought up to D-40 at 20 feet with glasses, he will be considered "FIT."
- Standard IV.—If he can read D-200 at 20 feet with the right eye, without glasses, and not less than D-80 with the left eye, at the same distance, without glasses, he will be considered "FIT" for the Canadian Army Medical Corps, Canadian Ordnance Corps, Canadian Army Service Corps, Canadian Army Dental Corps, Forestry, Pioneer, Construction and Labour Battalions, Sections of Skilled Railway Employees, and for Drivers of the Canadian Artillery or Canadian Engineers.

#### CANADIAN ARMY MEDICAL CORPS-CANADIAN ARMY DENTAL CORPS.

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#### Pioneer, Labour, Construction and Forestry Battalions and Sections Skilled Railway Employees.

Men may be accepted who:--

- (1) have the lowest standard of vision as for the C.A.S.C., C.A.M.C., etc.;
- (2) can be raised to Standard I by the use of glasses;
- (3) have lost one eye, or the sight thereof, but whose vision in the remaining eye equals D-60 at 20 feet, such men to be examined and recommended by an Ophthalmic Medical Officer;
- (4) have squint, but whose vision in the fixing eye equals D-60 at 20 feet, and have been examined and recommended by an Ophthalmic Medical Officer.

N.B.—It is to be understood that in all doubtful cases of defective vision a definite opinion should be obtained from an Ophthalmic Medical Officer.

#### APPENDIX II.

#### HEARING.

Ears should be tested separately with the ordinary voice. Ear not under test to be closed firmly with the finger, and the candidate not to look at the officer speaking. The approximate distance at which the voice is heard by each ear, should be entered on the Medical History Sheet.

The following may be accepted :--

- (a) Any man who can hear the ordinary voice at fifteen feet or better, in each ear, and who has no organic disease of the ear.
- (b) Any man who has hearing at twenty-one feet in either ear, but with little or no hearing in the other ear, but without active organic disease.

N.B.—No man with a discharge from his ear shall be accepted for overseas service.

# CANADIAN ARMY MEDICAL CORPS—CANADIAN ARMY DENTAL CORPS.

#### Forestry, Pioneer, Construction and Labour Battalions and Sections Skilled Railway Employees.

Any man who has hearing at fifteen feet in either ear, and little or no hearing in the other ear, and has no active disease in the ear, may be accepted.

### APPENDIX III.

#### NASAL CONDITION.

Men suffering from severe nasal obstruction should not be enlisted, as it is found that such cases find it difficult or even impossible to wear respirators.