presence or absence of disabling conditions at the time of the examination.

§ 4.43 Osteomyelitis.

Chronic, or recurring, suppurative osteomyelitis, once clinically identified, including chronic inflammation of bone marrow, cortex, or periosteum, should be considered as a continuously disabling process, whether or not an actively discharging sinus or other obvious evidence of infection is manifest from time to time, and unless the focus is entirely removed by amputation will entitle to a permanent rating to be combined with other ratings for residual conditions, however, not exceeding amputation ratings at the site of election.

§ 4.44 The bones.

The osseous abnormalities incident to trauma or disease, such as malunion with deformity throwing abnormal stress upon, and causing malalignment of joint surfaces, should be depicted from study and observation of all available data, beginning with inception of injury or disease, its nature, degree of prostration, treatment and duration of convalescence, and progress of recovery with development of permanent residuals. With shortening of a long bone, some degree of angulation is to be expected; the extent and direction should be brought out by X-ray and observation. The direction of angulation and extent of deformity should be carefully related to strain on the neighboring joints, especially those connected with weight-bearing.

§4.45 The joints.

As regards the joints the factors of disability reside in reductions of their normal excursion of movements in different planes. Inquiry will be directed to these considerations:

- (a) Less movement than normal (due to ankylosis, limitation or blocking, adhesions, tendon-tie-up, contracted scars, etc.).
- (b) More movement than normal (from flail joint, resections, nonunion of fracture, relaxation of ligaments, etc.).
- (c) Weakened movement (due to muscle injury, disease or injury of periph-

eral nerves, divided or lengthened tendons, etc.).

- (d) Excess fatigability.
- (e) Incoordination, impaired ability to execute skilled movements smoothly.
- (f) Pain on movement, swelling, deformity or atrophy of disuse. Instability of station, disturbance of locomotion, interference with sitting, standing and weight-bearing are related considerations. For the purpose of rating disability from arthritis, the shoulder, elbow, wrist, hip, knee, and ankle are considered major joints; multiple involvements of the interphalangeal, metacarpal and carpal joints of the upper extremities, the interphalangeal, metatarsal and tarsal joints of the lower extremities, the cervical vertebrae, the dorsal vertebrae, and the lumbar vertebrae, are considered groups of minor joints, ratable on a joints. with major parity The lumbosacral articulation and both sacroiliac joints are considered to be a group of minor joints, ratable on disturbance of lumbar spine functions.

§ 4.46 Accurate measurement.

Accurate measurement of the length of stumps, excursion of joints, dimensions and location of scars with respect to landmarks, should be insisted on. The use of a goniometer in the measurement of limitation of motion is indispensable in examinations conducted within the Department of Veterans Affairs. Muscle atrophy must also be accurately measured and reported.

[41 FR 11294, Mar. 18, 1976]

§§ 4.47-4.54 [Reserved]

§ 4.55 Principles of combined ratings for muscle injuries.

- (a) A muscle injury rating will not be combined with a peripheral nerve paralysis rating of the same body part, unless the injuries affect entirely different functions.
- (b) For rating purposes, the skeletal muscles of the body are divided into 23 muscle groups in 5 anatomical regions: 6 muscle groups for the shoulder girdle and arm (diagnostic codes 5301 through 5306); 3 muscle groups for the forearm and hand (diagnostic codes 5307 through 5309); 3 muscle groups for the

§ 4.56

foot and leg (diagnostic codes 5310 through 5312); 6 muscle groups for the pelvic girdle and thigh (diagnostic codes 5313 through 5318); and 5 muscle groups for the torso and neck (diagnostic codes 5319 through 5323).

- (c) There will be no rating assigned for muscle groups which act upon an ankylosed joint, with the following exceptions:
- (1) In the case of an ankylosed knee, if muscle group XIII is disabled, it will be rated, but at the next lower level than that which would otherwise be assigned.
- (2) In the case of an ankylosed shoulder, if muscle groups I and II are severely disabled, the evaluation of the shoulder joint under diagnostic code 5200 will be elevated to the level for unfavorable ankylosis, if not already assigned, but the muscle groups themselves will not be rated.
- (d) The combined evaluation of muscle groups acting upon a single unankylosed joint must be lower than the evaluation for unfavorable ankylosis of that joint, except in the case of muscle groups I and II acting upon the shoulder.
- (e) For compensable muscle group injuries which are in the same anatomical region but do not act on the same joint, the evaluation for the most severely injured muscle group will be increased by one level and used as the combined evaluation for the affected muscle groups.
- (f) For muscle group injuries in different anatomical regions which do not act upon ankylosed joints, each muscle group injury shall be separately rated and the ratings combined under the provisions of §4.25.

(Authority: 38 U.S.C. 1155) [62 FR 30237, June 3, 1997]

\$4.56 Evaluation of muscle disabilities.

- (a) An open comminuted fracture with muscle or tendon damage will be rated as a severe injury of the muscle group involved unless, for locations such as in the wrist or over the tibia, evidence establishes that the muscle damage is minimal.
- (b) A through-and-through injury with muscle damage shall be evaluated

as no less than a moderate injury for each group of muscles damaged.

- (c) For VA rating purposes, the cardinal signs and symptoms of muscle disability are loss of power, weakness, lowered threshold of fatigue, fatigue-pain, impairment of coordination and uncertainty of movement.
- (d) Under diagnostic codes 5301 through 5323, disabilities resulting from muscle injuries shall be classified as slight, moderate, moderately severe or severe as follows:
- (1) Slight disability of muscles—(i) Type of injury. Simple wound of muscle without debridement or infection.
- (ii) History and complaint. Service department record of superficial wound with brief treatment and return to duty. Healing with good functional results. No cardinal signs or symptoms of muscle disability as defined in paragraph (c) of this section.
- (iii) Objective findings. Minimal scar. No evidence of fascial defect, atrophy, or impaired tonus. No impairment of function or metallic fragments retained in muscle tissue.
- (2) Moderate disability of muscles—(i) Type of injury. Through and through or deep penetrating wound of short track from a single bullet, small shell or shrapnel fragment, without explosive effect of high velocity missile, residuals of debridement, or prolonged infection.
- (ii) History and complaint. Service department record or other evidence of in-service treatment for the wound. Record of consistent complaint of one or more of the cardinal signs and symptoms of muscle disability as defined in paragraph (c) of this section, particularly lowered threshold of fatigue after average use, affecting the particular functions controlled by the injured muscles.
- (iii) Objective findings. Entrance and (if present) exit scars, small or linear, indicating short track of missile through muscle tissue. Some loss of deep fascia or muscle substance or impairment of muscle tonus and loss of power or lowered threshold of fatigue when compared to the sound side.
- (3) Moderately severe disability of muscles—(i) Type of injury. Through and through or deep penetrating wound by small high velocity missile or large