

Slide 1 - Title



Rating Muscle Injuries


Compensation Service

September 2020



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Objectives


At the end of the lesson, given the available references, the RVSR trainee will be able to:

- Identify the types of muscle injuries
- Identify the groups I-XXIII of muscle injuries for rating purposes; slight, moderate, moderately severe, or severe
- Identify how to evaluate scars as they pertain to muscle injuries
- Apply the principles of a muscle injury in rating to a corresponding scenario





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References

- [§ 3.350\(a\)\(3\) Special monthly compensation](#)
- [§ 4.118 Rating for scars due to muscle injuries \(7804\)](#)
- [§ 4.55 Principles of Combined Ratings for Muscle Injuries](#)
- [§ 4.56 Evaluation of Muscle Disabilities](#)
- [§ 4.64 Loss of use of both buttocks](#)
- [§ 4.67 Pelvic bones](#)
- [§ 4.73 Schedule of Rating for Muscle Injuries](#)
- [M21-1 III.iv.4.B.8 Muscle Injuries](#)
- [*Esteban v. Brown*, 6 Vet.App. 259 \(1994\)](#)
- [*Jones v. Principi*, 18 Vet.App. 248 \(2004\)](#)



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§ 4.73 Schedule of Rating for Muscle Injuries

NOTE: Terminal digits from 01-23 correspond with the affected muscle group.

	Rating	
	Dominant	Nondominant
5301 Group I. <i>Function:</i> Upward rotation of scapula; elevation of arm above shoulder level.		
<i>Extrinsic muscles of shoulder girdle:</i> (1) Trapezius; (2) levator scapulae; (3) serratus magnus		
Severe	40	30
Moderately Severe	30	20
Moderate	10	10
Slight	0	0


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§ 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 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



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Types of Muscle Injuries

- Gunshots
- Fragments from explosive devices
- Tears and lacerations
- Through and through wounds
- Deep penetrating wounds



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§ 4.56 - Evaluation of Muscle Disabilities

- 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.
- A through-and-through injury with muscle damage shall be evaluated as no less than a moderate injury for each group of muscles damaged.
- 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.



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§ 4.56(d) - *Slight* Muscle Disability

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.



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§ 4.56(d) - *Moderate* Muscle Disability

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.



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§ 4.56(d) - *Moderately Severe* Muscle Disability

- 3) *Moderately severe disability of Muscles* -
 - i. *Type of injury.* Through and through or deep penetrating wound by small high velocity missile or large low-velocity missile, with debridement, prolonged infection, or sloughing of soft parts, and intermuscular scarring.
 - ii. *History and complaint.* Service department record or other evidence showing hospitalization for a prolonged period for treatment of wound. Record of consistent complaint of cardinal signs and symptoms of muscle disability as defined in paragraph (c) of this section and, if present, evidence of inability to keep up with work requirements.
 - iii. *Objective findings.* Entrance and (if present) exit scars indicating track of missile through one or more muscle groups. Indications on palpation of loss of deep fascia, muscle substance, or normal firm resistance of muscles compared with sound side. Tests of strength and endurance compared with sound side demonstrate positive evidence of impairment.



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§ 4.56(d) - *Severe* Muscle Disability

- 3) *Severe disability of Muscles* -
 - i. *Type of injury.* Through and through or deep penetrating wound due to high-velocity missile, or large or multiple low velocity missiles, or with shattering bone fracture or open comminuted fracture with extensive debridement, prolonged infection, or sloughing of soft parts, intermuscular binding and scarring.
 - ii. *History and complaint.* Service department record or other evidence showing hospitalization for a prolonged period for treatment of wound. Record of consistent complaint of cardinal signs and symptoms of muscle disability as defined in paragraph (c) of this section, worse than those shown for moderately severe muscle injuries, and, if present, evidence of inability to keep up with work requirements.



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§ 4.56(d) - *Severe* Muscle Disability

iii. *Objective findings.* Ragged, depressed and adherent scars indicating wide damage to muscle groups in missile track. Palpation shows loss of deep fascia or muscle substance, or soft flabby muscles in wound area. Muscles swell and harden abnormally in contraction. Tests of strength, endurance, or coordinated movements compared with the corresponding muscles of the uninjured side indicate severe impairment of function. If present, the following are also signs of severe muscle disability:

- A. X-ray evidence of minute multiple scattered foreign bodies indicating intermuscular trauma and explosive effect of the missile.
- B. Adhesion of scar to one of the long bones, scapula, pelvic bones, sacrum or vertebrae, with epithelial sealing over the bone rather than true skin covering in an area where bone is normally protected by muscle.
- C. Diminished muscle excitability to pulsed electrical current in electrodiagnostic tests.
- D. Visible or measurable atrophy.
- E. Adaptive contraction of an opposing group of muscles.
- F. Atrophy of muscle groups not in the track of the missile, particularly of the trapezius and serratus in wounds of the shoulder girdle.
- G. Induration or atrophy of an entire muscle following simple piercing by a projectile.



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Miscellaneous Muscle Injuries

- Rupture of the Diaphragm
- Peripheral Nerve Involvement in Muscle Injuries
- Facial Muscles
- Muscle hernia
- Muscle neoplasm, malignant/benign
- Sarcoma, soft tissue (of muscle, fat, or fibrous connective tissue)
- Amputation Rule to Muscle Injuries
- Additional Benefits to Consider
 - Special Monthly Compensation
 - DEA Benefits
 - Other Ancillary Benefits



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Disability Benefits Questionnaire - Muscle Injury

SECTION IV - MUSCLE INJURY EXAM

SCAR(S), FASCIA AND MUSCLE FINDINGS

4A. DOES THE VETERAN HAVE ANY SCAR(S) ASSOCIATED WITH A MUSCLE INJURY?



Yes No If yes, indicate severity of scars(s) caused by the muscle injury(ies). Check all that apply if there is more than one area or type of scarring.

- Minimal scar(s)
- Entrance and (if present) exit scars are small or linear, indicating short track of missile through muscle tissue
- Entrance and (if present) exit scars indicating track of missile through one or more muscle groups
- Ragged, depressed and adherent scars indicating wide damage to muscle groups in missile track
- Adhesion of scar to one of the long bones, scapula, pelvic bones, sacrum or vertebrae, with epithelial sealing over the bone rather than true skin covering in an area where bone is normally protected by muscle
- Other (including surgical scars related to muscle injuries shown above, ALSO complete Scars/Disfigurement questionnaire)

4B. DOES THE VETERAN HAVE ANY KNOWN FASCIAL DEFECTS OR EVIDENCE OF FASCIAL DEFECTS ASSOCIATED WITH ANY MUSCLE INJURIES?


Yes No If yes, indicate severity of fascial defect(s) caused by the muscle injury(ies) (check all that apply if there is more than one area/type of fascial defect)

- Some loss of deep fascia
- Palpation shows loss of deep fascia
- Other, describe:

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Disability Benefits Questionnaire - Muscle Injury

SECTION IV - MUSCLE INJURY EXAM (Continued)
MUSCLE STRENGTH TESTING

4E. TEST MUSCLE STRENGTH ONLY FOR AFFECTED MUSCLE GROUPS AND FOR THE CORRESPONDING SOUND (NON-INJURED) SIDE. RATE STRENGTH ACCORDING TO THE FOLLOWING SCALE:

0/5 No muscle movement
 1/5 Visible muscle movement, but no joint movement
 2/5 No movement against gravity
 3/5 No movement against resistance
 4/5 Less than normal strength
 5/5 Normal strength

Shoulder abduction (Group III)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Elbow flexion (Group V)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Elbow extension (Group VI)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Wrist flexion (Group VII)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Wrist extension (Group VIII)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Hip flexion (Group XVI)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Knee flexion (Group XIII)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Knee extension (Group XIV)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Ankle plantar flexion (Group XI)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
Ankle dorsiflexion (Group XII)	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
If other movements/muscle groups were tested, specify:	Right:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5
	Left:	<input type="checkbox"/> 5/5	<input type="checkbox"/> 4/5	<input type="checkbox"/> 3/5	<input type="checkbox"/> 2/5	<input type="checkbox"/> 1/5	<input type="checkbox"/> 0/5

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Muscle Injury DBQ

4F. DOES THE VETERAN HAVE MUSCLE ATROPHY OF THE INJURED MUSCLE GROUP?

Yes No

If muscle atrophy is present, indicate location (such as calf, thigh, forearm, upper arm): _____

(Indicate side affected): Right Left Both

(Indicate muscle group(s) affected (I-XXIII) if possible): _____

Provide measurements in centimeters of normal side and atrophied side, measured at maximum muscle bulk:
 Normal side: _____ cm. Atrophied side: _____ cm

If muscle atrophy is present in more than one muscle group, provide location and measurements, using the same format:



8B. IS THERE X-RAY EVIDENCE OF RETAINED METALLIC FRAGMENTS (such as shell fragments or shrapnel) IN ANY MUSCLE GROUP?

Yes No (If yes, indicate results):

X-ray evidence of retained shell fragment(s) and/or shrapnel
 Location (specify muscle Group I-XXIII, if possible): _____

(Indicate side affected): Right Left Both

X-ray evidence of minute multiple scattered foreign bodies indicating intermuscular trauma and explosive effect of the missile
 Location (specify muscle Group I-XXIII, if possible): _____

(Indicate side affected): Right Left Both





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Evaluation Builder Entry

*** Select Group Number:**

- I
- II
- III
- IV
- V
- VI

*** Extremity:**

- Dominant
- Non-dominant

Type of Muscle Injury:

- Simple wound of muscle without abridement or infection
- Through and through wound from a single bullet, without explosive effect
- Through and through wound from a single bullet, without residuals of debris
- Through and through wound from a single bullet, without prolonged infection
- Through and through wound from a small shell, without explosive effect
- Through and through wound from a small shell, without residuals of debris
- Through and through wound from a small shell, without prolonged infection
- Through and through wound from a shrapnel fragment, without explosive effect
- Through and through wound from a shrapnel fragment, without residuals of debris
- Through and through wound from a shrapnel fragment, without prolonged infection
- Deep penetrating of short track wound from a shrapnel fragment, without explosive effect
- Deep penetrating of short track wound from a shrapnel fragment, without residuals of debris
- Deep penetrating of short track wound from a shrapnel fragment, without prolonged infection
- Deep penetrating of short track wound from a single bullet, without explosive effect

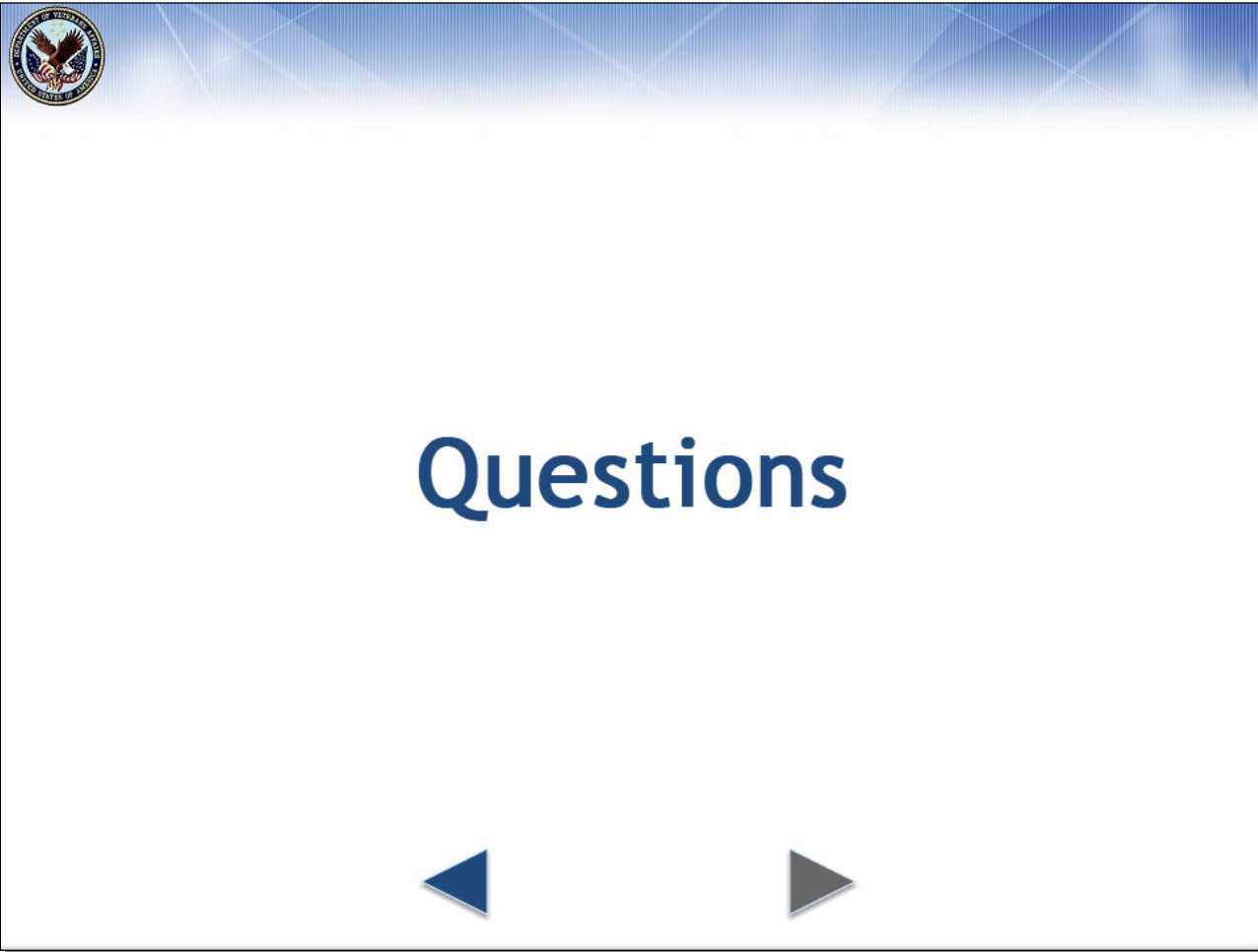
Objective Findings:

- Minimal scar
- No evidence of fascial defect
- No evidence of atrophy
- No evidence of impaired tonus
- No impairment of function
- Metallic fragments retained in muscle tissue
- Small entrance and (if present) exit scars, indicating short track of missile
- Linear entrance and (if present) exit scars, indicating short track of missile
- Some loss of deep fascia and loss of power when compared to the sound
- Some loss of muscle substance and loss of power when compared to the sound
- Some impairment of muscle tonus and loss of power when compared to the sound
- Some loss of deep fascia and lowered threshold of fatigue when compared to the sound
- Some loss of muscle substance and lowered threshold of fatigue when compared to the sound
- Some impairment of muscle tonus and lowered threshold of fatigue when compared to the sound

NOTE: Selections that negate functional impairment must be activated if corresponding symptoms are not present.

Notes

Slide 18 - Questions



The slide content area features a blue gradient header with a circular logo in the top left corner. The logo contains an eagle and the text 'REPUBLIC OF YEMEN' and 'STATE OF SOVEREIGNTY'. The word 'Questions' is centered in a large blue font. At the bottom center, there are two navigation arrows: a blue left-pointing arrow and a grey right-pointing arrow.

Notes
