IMEs: Tools to Determine RTW Status

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Who am I? I am an Athletic Trainer

- Athletic trainers are [AMA recognized] health care professionals who collaborate with physicians to optimize activity and participation of patients and clients.
- Athletic training encompasses the prevention,
  - diagnosis, and intervention of emergency,
  - acute, and chronic medical conditions involving impairment, functional limitations, and disabilities.

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What we will cover today

- Definition of IME
- Tx Designated Doctor System
- Purpose of an IME
- Value of IMEs
- General Requirements of an IME
- IME Reports
- MMI
- EBP & RTW Tools

What is an IME?

- Independent Medical Examination
- Single complete, comprehensive and objective description of examinee's condition at that time, in the context of prior health, physical and vocational capabilities and social functioning
- Performed by an evaluator not involved in the care of the examinee
- Goal: determination of treatment, MMI, RTW

What is a Designated Doctor?

- Appointed by the Division of Workers Compensation in some states to recommend a resolution of a dispute as to the medical condition of an injured worker pertaining to issues such as:
  - Maximum Medical Improvement (MMI)
  - Determination of existence of permanent impairment (IR)
  - Return to work status (RTW)
  - Evaluation of Medical Care (EMC)
  - Any other medical questions regarding the injured workers' medical condition

What is a Designated Doctor?

- In order to serve as a Designated Doctor, a physician must:
  - be certified through the Division of Workers Comp
  - be appointed to the (ADL) Approved Doctors List
  - additionally certified to perform MMI and Impairment Rating Examinations
- Differs from state to state

Additional Testing/Referrals

- DD determines the need for additional testing/referral
- Not subject to preauthorization or retrospective review for medical necessity, extent of injury or compensability
- If it is necessary to determination, then it is DD's obligation to order and review findings prior to completing DD report
- Failure to base analysis on complete patient evaluation may discredit DD analysis

Why are IMEs Performed?

- Second opinion
- Identify symptom magnification & malingering
- Clarify clinical case issues
- Answer specific questions posed by the referring source.
- Determination of treatment, MMI, RTW

Value of a Good IME

- Aid all parties by providing:
  - Proper and efficient case management
  - Understanding of multiple interrelated case details
  - Feedback to Treating Physicians
  - Closure and accurate disposition in impairment cases
  - Guidance to adversarial parties when issues are disputed
  - Benefit of an independent physician's medical opinion

Cost-Benefit of an IME: IMEs can be used to aid in claims management?

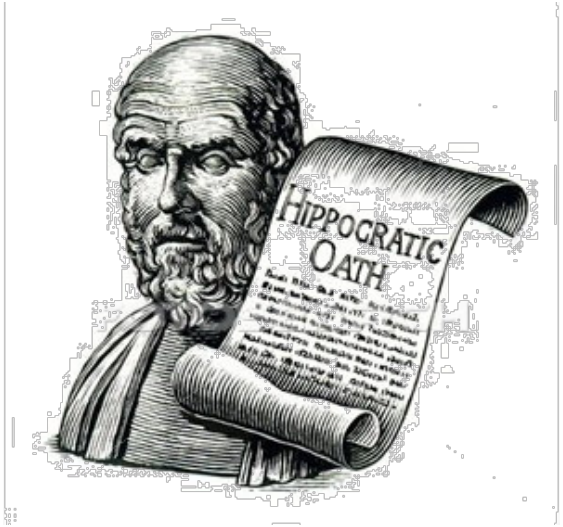
- Use the opinion to provide the employee the appropriate care and/or return the employee to work sooner.
- Use the opinion to deny the employee's claim or reduce the disability rating.

General Requirements for an IME

- Rules vary by State, but there are Universal requirements:
- Notice of time, place, and name of IME
- Must outline the scope of the evaluation
- Must reimburse the physician for the report
- Must copy report to patient attorney
- May Depose or subpoena Physician for court

Limited doctor-patient relationship

- Examiner should inform the patient that the scope of the examination is limited and does not substitute for a standard physical examination.
- Physician is ethically responsible for disclosing any medical findings that could affect the patient's health



Similarities & Differences By Type of Report

Features of Report	Worker's Comp IME	Motor Vehicle Injury or Personal injury IME	Long Term Disability IME	Conventional Medical Report
Level of History Detail	Comprehensive involving subjective and written record review	Comprehensive involving subjective and written record review	Comprehensive involving subjective and written record review	Usually brief and relevant to Chief Complaint Usually Subjective only
Physical Exam	Directed toward Objective documentation, Usually utilizes protocol for impairment rating	Directed toward Objective documentation, sometimes utilizes protocol for impairment rating	Directed toward Objective documentation, rarely utilizes protocol for impairment rating	Directed toward Diagnosis rarely utilizes protocol for impairment rating
Diagnosis	Always	Always	Always	Always
Causation	Often	Often	Rarely	Rarely
Prognosis	Often	Often	Often	Often
MMI (Maximum medical Improvement)	Usually	Often	Often	Rarely
Impairment Rating	Usually	Sometimes	No	No

Similarities & Differences By Type of Report

Features of Report	Worker's Comp IME	Motor Vehicle Injury or Personal injury IME	Long Term Disability IME	Conventional Medical Report
Functional ability	Often	Often	Often	Rarely
Prior Care appropriate?	Sometimes	Often	Sometimes	Rarely
Apportionment	Sometimes	Sometimes	Rarely	Rarely
Future Care Recommendation	Often	Often	Sometimes	Always
Specific Questions answered from Requesting Agency	Often	Usually	Usually	No
Who does them?	Independent Examiner	Independent Examiner	Independent Examiner	Treating Physician
Terminology	Use of specific terms defined by Guidelines; Opinions explained in Lay terms	Use of specific terms defined by Guidelines; Opinions explained in Lay terms	Specific terms defined by disability contract	Complex Medical Terminology not using Guidelines definitions

Parts of a Well Drafted IME Report

- Introduction and Descriptive Data
- History /Background Information
  - Records review
  - Subjective interview
- Physical Examination
- Other objective data

Parts of a Well Drafted IME Report

- Causation
- Apportionment
- IR
- Disability/functional status
- Prognosis
- Answers to Specific Questions Posed by Referral Source
- References
- Opinions
  - Mandatory and accompanied by supporting facts and reasoning
  - List of impressions
  - Discussion of diagnoses
  - Comments on past medical Tx
  - MMI

Parts of a Well Drafted IME Report

- Qualifications of the IME Physician
- Disclaimers

Poll Question

*"I'm afraid I can't treat you, Mr. Fisk.
I have a conflict of interest."*

Mandatory Elements of a Functional Capacity Exam

- Functional abilities tests:
  - Activities of daily living (pushing, pulling, kneeling, squatting, carrying & climbing)
  - Hand function
  - Submaximal cardiovascular endurance
  - Static positional tolerance
- A physical examination and neurological evaluation:
  - Appearance
  - Flexibility
  - Posture and deformities;
  - Vascular integrity;
  - Neurological
  - Myotoms (strength)
  - Reflexes
- A physical capacity evaluation of the injured area:
  - Range of motion
  - Strength/endurance

Definition of MMI

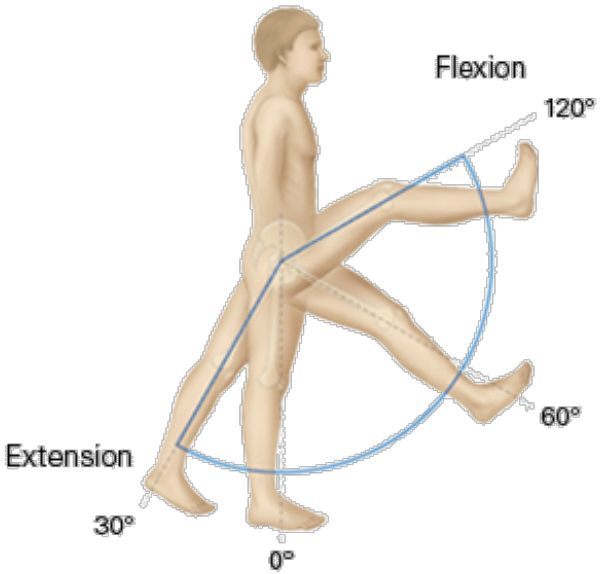
- Clinical MMI - The earliest date, after which based on reasonable medical probability, further material recovery from or lasting improvement to an injury can no longer reasonably be anticipated

Typical Physical Exam Checklist & RTW Tools

- Gait
- ROM
- Strength (MMT)
- Sensation / stability / reflexes
- Special Tests
- Evidence-Based Medical Treatment and Return to Work Guidelines
  - MDGuidelines (MDG)
  - Official Disability Guidelines (ODG)
- PROs

Definition: ROM

- Range of motion (ROM) is the term that is used to describe the amount of movement you have at each joint.



Type of ROM

- Active Range of Motion
- Passive Range of Motion
- Goniometry:
  - Method of measuring ROM

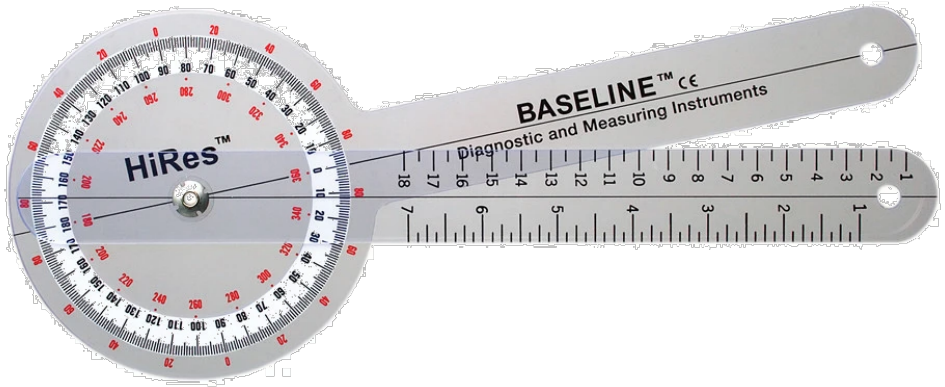


Image Source: https://x10therapy.com/applications/knee-goniometer/

Active Range of Motion

- Dynamic flexibility
- Physiological movements
- Joint motion that occurs because of muscle contraction created by the patient

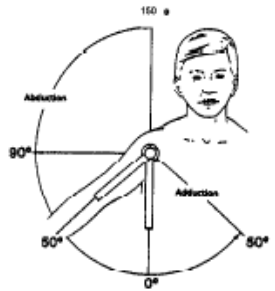
Passive Range of Motion

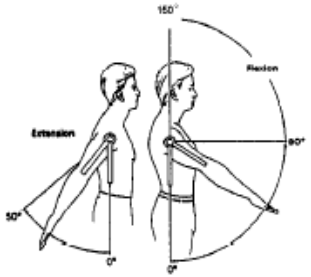
- Static flexibility
- Movement that is performed completely by the examiner
- Endpoints in the range of motion

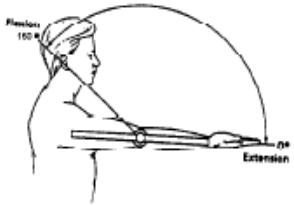
Components of Range of Motion

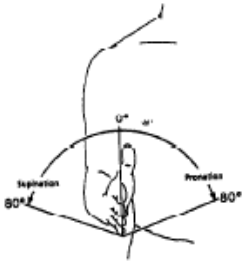
- Sex
- Age
- Race
- Shape of the bone and cartilage
- Muscle power and tone
- Muscle bulk
- Ligaments and joint capsule laxity
- Extensibility of the skin and subcutaneous tissue

UE ROM Measures

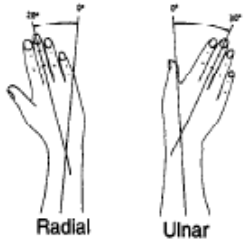
11. Shoulder (Abduction – Adduction)		
	Left	
	Abduction 150°	Adduction 30°
	Degrees	Degrees
	Right	
	Abduction 150°	Adduction 30°
	Degrees	Degrees

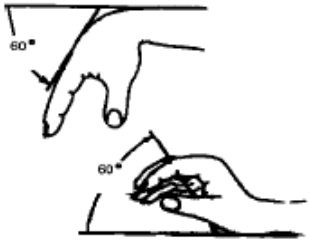
12. Shoulder (Flexion – Extension)		
	Left	
	Extension 50°	Flexion 150°
	Degrees	Degrees
	Right	
	Extension 50°	Flexion 150°
	Degrees	Degrees

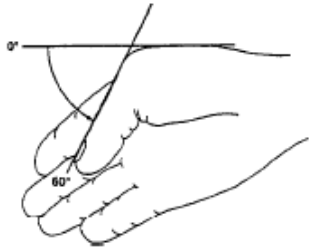
13. Elbow		
	Left	
	Extension 0°	Flexion 150°
	Degrees	Degrees
	Right	
	Extension 0°	Flexion 150°
	Degrees	Degrees

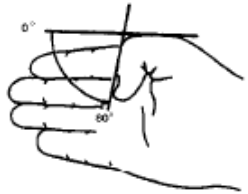
14. Forearm (Pronation – Supination)		
	Left	
	Pronation 80°	Supination 80°
	Degrees	Degrees
	Right	
	Pronation 80°	Supination 80°
	Degrees	Degrees

UE ROM Measures

17. Wrist (radial, ulnar)		
	Left	
	Radial 20°	Ulnar 30°
	Degrees	Degrees
	Right	
	Radial 20°	Ulnar 30°
	Degrees	Degrees

18. Wrist		
	Left	
	Extension 60°	Flexion 60°
	Degrees	Degrees
	Right	
	Extension 60°	Flexion 60°
	Degrees	Degrees

19. Thumb (MP Joint)		
	Left	Right
	Flexion 60°	Flexion 60°
	Degrees	Degrees

20. Thumb (IP Joint)		
	Left	Right
	Flexion 80°	Flexion 80°
	Degrees	Degrees

UE ROM Norms

Table 1.6 Range of Motion—Upper Extremity

Note: Values are according to the American Academy of Orthopedic Surgeons.

Joint	Motion	Range of Motion (in degrees)
Shoulder	Flexion	0–180
	Extension	0–60
	Abduction	0–180
	Lateral rotation	0–90
	Medial rotation	0–70
Elbow Complex	Flexion	0–150
	Pronation	0–80
	Supination	0–80
Wrist	Flexion	0–80
	Extension	0–70
	Radial deviation	0–20
	Ulnar deviation	0–30

UE ROM Norms

Table 1.6 Range of Motion—Upper Extremity

Note: Values are according to the American Academy of Orthopedic Surgeons.

Joint	Motion	Range of Motion (in degrees)
Thumb	CMC flexion	0–15
	CMC extension	0–20
	CMC abduction	0–70
	MCP flexion	0–50
	IP flexion	0–80
2nd through 5th digits	MCP flexion	0–90
	MCP hyperextension	0–45
	MCP abduction	0–45
	PIP flexion	0–100
	DIP flexion	0–90
	DIP hyperextension	0–10

CMC=carpometacarpal; DIP=interphalangeal distal; IP=interphalangeal; MCP=metacarpophalangeal; PIP=posterior interphalangeal.

UE ROM %

Table 1.7 Range of Motion—Upper Extremity Percentages

(See rationale and use instructions on page 15.)

% of Normal	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
% of Deficit	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
Shoulder *abd.*	180	171	162	153	144	135	126	117	108	99	90	81	72	63	54	45	36	27	18	9
Flexion	180	171	162	153	144	135	126	117	108	99	90	81	72	63	54	45	36	27	18	9
Ext. rot.	90	86	81	77	72	68	63	59	54	50	45	41	36	32	27	23	18	14	9	5
Int. rot.	70	67	63	60	56	53	49	46	42	39	35	32	28	25	21	18	14	11	7	4
Extension	60	57	54	51	48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3
Elbow *flex.*	150	143	135	128	120	113	105	98	90	83	75	68	60	53	45	38	30	23	15	8
Pron./Supin.	80	76	72	68	64	60	56	52	48	44	40	36	32	28	24	20	17	12	8	4
Wrist *flexion*	80	76	72	68	64	60	56	52	48	44	40	36	32	28	24	20	17	12	8	4
Ext.	70	67	63	60	56	53	49	46	42	39	35	32	28	25	21	18	14	11	7	4
Rad. dev.	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Uln. dev.	30	29	27	26	24	23	21	29	18	17	15	14	12	11	9	8	6	5	3	2

UE ROM%

Table 1.7 Range of Motion—Upper Extremity Percentages

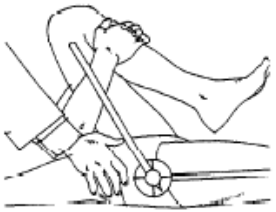
Thumb																				
CMC flex.	15	14	14	13	12	11	11	10	9	8	8	7	6	5	5	4	3	2	2	1
CMC ext.	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CMC abd.	70	67	63	60	56	53	49	46	42	39	35	32	28	25	21	18	14	11	7	4
MCP flex.	50	48	45	43	40	38	35	33	30	28	25	23	20	18	15	13	10	8	5	3
IP flex.	80	76	72	68	64	60	56	52	48	44	40	36	32	28	24	20	17	12	8	4
Digits 2-5																				
MCP flex.	90	86	81	77	72	68	63	59	54	50	45	41	36	32	27	23	18	14	9	5
MCP hypex.	45	43	41	38	36	34	32	29	27	25	23	20	18	16	14	11	9	7	5	2
MCP abd.	45	43	41	38	36	34	32	29	27	25	23	20	18	16	14	11	9	7	5	2
PIP flex.	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
DIP flex.	90	86	81	77	72	68	63	59	54	50	45	41	36	32	27	23	18	14	9	5
DIP hypetxt.	10	9	9	9	8	8	7	7	6	6	5	5	4	4	3	3	2	2	1	1

LE ROM Measures

6. Hip (backward extension)

Left 30°	Right 30°
Degrees	Degrees

7. Hip (flexion)



Left	
Knee Flexed 100°	Knee Extended 100°
Degrees	Degrees
Right	
Knee Flexed 100°	Knee Extended 100°
Degrees	Degrees

8. Hip (adduction)

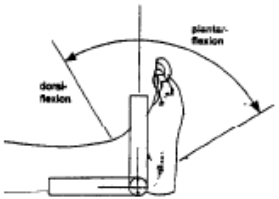
Left 20°	Right 20°
Degrees	Degrees

9. Hip (abduction)

Left 40°	Right 40°
Degrees	Degrees

LE ROM Measures

10. Knee (flexion)		
	Left 150°	Right 150°
	Degrees	Degrees

15. Ankle			16. Ankle (Flexion – Extension)		
	Left			Left	
	Inversion 30°	Eversion 20°		Plantar 40°	Dorsal 20°
	Degrees	Degrees		Degrees	Degrees
	Right			Right	
	Inversion 30°	Eversion 20°		Plantar 40°	Dorsal 20°
	Degrees	Degrees		Degrees	Degrees

LE ROM Norms

Table 1.4 Range of Motion—Lower Extremity and Spine

Note: Values are according to the American Academy of Orthopedic Surgeons.

Joint	Hip	Range of Motion (in degrees)
Hip	Flexion	0–120
	Extension	0–30
	Adduction	0–30
	Abduction	0–45
	Lateral rotation	0–45
	Medial rotation	0–45
Knee	Flexion	0–150
Ankle	Dorsiflexion	0–20
	Plantar flexion	0–50
	Inversion	0–35
	Eversion	0–15
Cervical	Flexion	0–45
	Extension	0–45
	Rotation	0–60
	Lateral flexion	0–45
Thoracolumbar	Flexion	0–80
	Extension	0–25
	Rotation	0–35
	Lateral flexion	0–45

LE ROM %

Table 1.5 Range of Motion—Lower Extremity Percentages																				
% of Normal	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5
% of Deficit	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
***Hip** flex.*	120	114	108	102	96	90	84	78	72	66	60	54	48	42	36	30	24	18	12	6
Abd.	45	32	41	38	36	34	32	29	27	25	23	20	18	16	14	11	9	7	5	2
Add.	30	29	27	26	24	23	21	20	18	17	15	14	12	11	9	8	6	5	3	2
Ext. rot.	45	42	41	38	36	34	32	29	27	25	23	20	18	16	14	11	9	7	5	2
Int. rot.	45	42	41	38	36	34	32	29	27	25	23	20	18	16	14	11	9	7	5	2
Ext.	30	29	27	26	24	23	21	20	18	17	15	14	12	11	9	8	6	5	3	2
***Knee** flex.*	150	143	135	128	120	113	105	98	90	83	75	68	60	53	45	38	30	23	15	8
***Ankle** dorsi.*	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Plantar	50	48	45	43	40	38	35	33	30	28	25	23	20	18	15	13	10	8	5	3
Invers.	35	33	32	30	28	26	25	23	21	19	18	16	14	12	11	9	7	5	4	2
Evers.	15	14	14	13	12	11	11	10	9	8	8	7	6	5	5	4	3	2	2	1

Neck & Spine ROM Measures

1. Back

Extension 25°	Flexion 90°
Degrees	Degrees

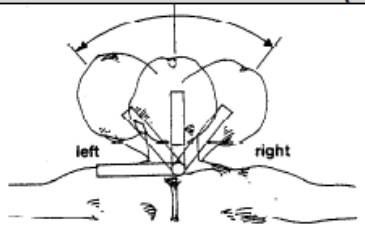
2. Lateral (flexion)

Left 25°	Right 25°
Degrees	Degrees

3. Neck

Extension 60°	Flexion 50°
Degrees	Degrees

4. Neck (lateral bending)



Left 45°	Right 45°
Degrees	Degrees

5. Neck (rotation)

Left 80°	Right 80°
Degrees	Degrees

UE MMT

Table 1.10 Manual Muscle Testing—Shoulder

Joint	Motion	Muscle(s)	Gravity+ Fair	Gravity− Poor
Shoulder	Abduction	Deltoid Supraspinatus	Sitting	Supine
	Extension	Deltoid Latissimus dorsi Teres major	Prone	Side lying
	Flexion	Deltoid Coracobrachialis Pectoralis major	Sitting	Side lying
	Horizon. abd.	Deltoid Teres minor Infraspinatus	Prone	Sitting
	Horizon. add.	Deltoid Pectoralis major	Supine	Sitting
	Lateral rot.	Teres minor Infraspinatus Deltoid	Prone	Prone (with elbow ext.)
	Medial rot.	Deltoid Latissimus dorsi Teres major Pectoralis major Subscapularis	Prone	Prone (with elbow ext.)

UE MMT

Table 1.11 Manual Muscle Testing—Elbow and Wrist				
Joint	Motion	Muscle(s)	Gravity+ Fair	Gravity– Poor
Elbow Complex	Flexion	Biceps Brachialis Brachioradialis	Sitting	Sitting (with 90° of shoulder abd.)
	Extension	Triceps Anconeus	Prone (with 90° of shoulder abd.)	Sitting (with 90° of shoulder abd.)
	Supination	Biceps Supinator	Sitting (with 90° of elbow flex.)	Sitting (with 45°–90° of shoulder flex. and 90° of elbow flex.)
	Pronation	Pronator teres Pronator quad.	Sitting (with 90° of elbow flex.)	Sitting (with 45°–90° of shoulder flex. and 90° of elbow flex.)
Wrist	Extension	Ext. c. rad. long. Ext. c. rad. brev. Ext. c. ulnaris	Sitting (with forearm pronation and elbow flex.)	Sitting (with neutral forearm and elbow flex.)
	Flexion	Flex. carpi uln. Flex. carpi rad. Palmaris longus	Sitting (with forearm supination and elbow flex.)	Sitting (with neutral forearm and elbow flex.)

LE MMT

Table 1.8 Manual Muscle Testing—Hip and Knee

Joint	Motion	Muscle(s)	Gravity+ Fair	Gravity− Poor
Hip	Flexion	Iliopsoas Rectus femoris Pectineus Tensor fas. latae Sartorius	Sitting	Side lying
	Extension	Gluteus maximus Hamstrings	Prone Prone	Side lying
	Abduction	Gluteus medius Gluteus minimus	Side lying	Supine
	Adduction	Adductor longus Adductor brevis Adductor magnus Gracilis Pectineus	Side lying	Supine

LE MMT

Table 1.8 Manual Muscle Testing—Hip and Knee

Joint	Motion	Muscle(s)	Gravity+ Fair	Gravity− Poor
Hip	Lateral rot.	Piriformis Gemellus sup./inf. Obturator ext./int. Quadratus fem. Gluteus maximus	Sitting	Supine
	Medial rot.	Gluteus minimus Gluteus medius Tensor fas. lat.	Sitting	Supine
Knee	Extension	Quadriceps	Sitting	Side lying
	Flexion	Hamstrings Gastrocnemius	Prone	Side lying

LE MMT

Table 1.9 Manual Muscle Testing—Ankle				
Joint	Motion	Muscle(s)	Gravity+ Fair	Gravity– Poor
Ankle	Dorsiflexion	Tibialis anterior Peroneus tertius Ext. digit long. Ext. hal. long.	Sitting	Sitting
	Plantar flexion	Gastrocnemius Soleus	Standing	Prone
	Plantar flexion	Soleus	Standing (with knee flexion)	Prone (with 90° knee flexion)
	Inversion	Tibialis posterior Tibialis anterior Flex. digit. long. Flex. hal. long. Ext. hal. long.	Sitting	Sitting
	Eversion	Peroneus longus Peroneus brevis	Sitting	Sitting

UE Special Tests

Table 1.13 Selected Special Test Descriptions

Name	Assessment	Positive Test
SHOULDER		
Drop Arm Test	Positive test may indicate rotator cuff tear.	Abduct the shoulder against gravity. Instruct patient to slowly lower arm to side. The patient will not be able to lower arm smoothly and slowly; the arm will drop.
Hawkins-Kennedy Test	Positive test may indicate impingement syndrome involving the supraspinatus.	Flex the shoulder and elbow to 90° then internally rotate the shoulder. The patient will complain of pain.
Impingement Sign	Positive test may indicate impingement of the supraspinatus and/or long head of the biceps.	When sitting, passively horizontally adduct the shoulder with arm in 90° of shoulder flexion. Patient will have pain at the end range.
Neer Test	Positive test may indicate shoulder impingement involving the biceps tendon.	Passively and forcibly flex the shoulder. Patient will complain of pain.

UE Special Tests

Table 1.13 Selected Special Test Descriptions, *continued*

Name	Assessment	Positive Test
Speed's Test	Positive test may indicate bicipital tendonitis.	Flex the shoulder against gravity about 60° with the elbow extended and forearm supinated. Isometrically resist shoulder flexion at the forearm. Patient will complain of pain at the bicipital groove.
Yergason's Test	Positive test may indicate bicipital tendonitis.	Position the shoulder at the side and flex the elbow to 90° and pronate the forearm. Resist supination and external rotation. Patient will complain of pain at the bicipital groove.
ELBOW		
Golfer's Elbow Test	Positive test may indicate medial epicondylitis.	Stabilize the elbow. Supinate the patient's forearm while extending the elbow and wrist. Patient will complain of pain at the medial epicondyle.
Mill's Test	Positive test may indicate lateral epicondylitis.	Stabilize the elbow. Ask the patient to pronate the forearm and extend and radially deviate the wrist against manual resistance. Patient will complain of pain at the lateral epicondyle.

UE Special Tests

Table 1.13 Selected Special Test Descriptions, *continued*

Name	Assessment	Positive Test
Tinel's Test	Positive test may indicate a problem with the ulnar nerve.	Flex the elbow to 90°. Tap over the ulnar nerve. Patient will complain of paresthesias along the ulnar nerve sensory distribution.
WRIST		
Bunnel-Littler Test	Positive test may indicate tightness of the intrinsic muscles of the hand or a capsular problem of the joints.	Hold the MCP in extension and move the PIP into flexion. The PIP will not be able to be flexed.
Phalen's Test	Positive test may indicate carpal tunnel syndrome.	The patient flexes both wrists and presses the dorsal surfaces against each other to maintain flexion for 1 minute. The patient will experience paresthesias along the median nerve sensory distribution.
Tinel's Sign	Positive test may indicate lateral epicondylitis.	Supinate the forearm. Tap over the median nerve. The patient will experience paresthesias along the median nerve sensory distribution.

LE Special Tests

Table 1.13 Selected Special Test Descriptions, *continued*

Name	Assessment	Positive Test
HIP		
Ober Test	Positive test may indicate tightness of the iliotibial band or tensor fascia latae.	Position the patient in side lying on the uninvolved limb. Abduct and extend the uphill hip, and then release the limb. The limb will not lower to the uninvolved limb.
Piriformis Test	Positive test may indicate tightness of the piriformis muscle.	Position the patient in side lying on the uninvolved limb. Flex the hip to 60°–90° and the knee to 90°. Stabilize the pelvis and adduct the hip to the table. The patient will complain of pain in the buttocks.
Thomas Test	Positive test may indicate hip flexion contracture.	Place patient in supine. Have patient flex both hips and knees to the chest. Instruct patient to extend one limb to the table. The patient will be unable to fully extend the limb.
Trendelenburg Sign	Positive test may indicate weakness of the gluteus medius.	Have patient stand on one leg. The pelvis will drop to the noninvolved side.

LE Special Tests

Table 1.13 Selected Special Test Descriptions, *continued*

Name	Assessment	Positive Test
KNEE		
90–90 Straight Leg Raise Test	Positive test may indicate tightness of the hamstrings.	In supine, have the patient flex the hip and knee to 90°. Using the patient's or clinician's hands to maintain hip flexion, extend knee as much as possible. Patient is unable to extend knee beyond –20° extension.
Apley's (Compression) Test	Positive test may indicate meniscus damage.	Have the patient assume the prone position and flex the knee to 90°. With the clinician's hands on the plantar surface of the foot, internally and externally rotate the leg while pressing down. Patient will complain of pain at the knee.
Apley's Distraction Test	Positive test may indicate collateral ligament damage.	Have the patient assume the prone position and flex the knee to 90°. Use one hand to grasp the leg just proximal to the malleoli and distract the leg while the other hand stabilizes at the posterior thigh. Patient will complain of pain at the knee.

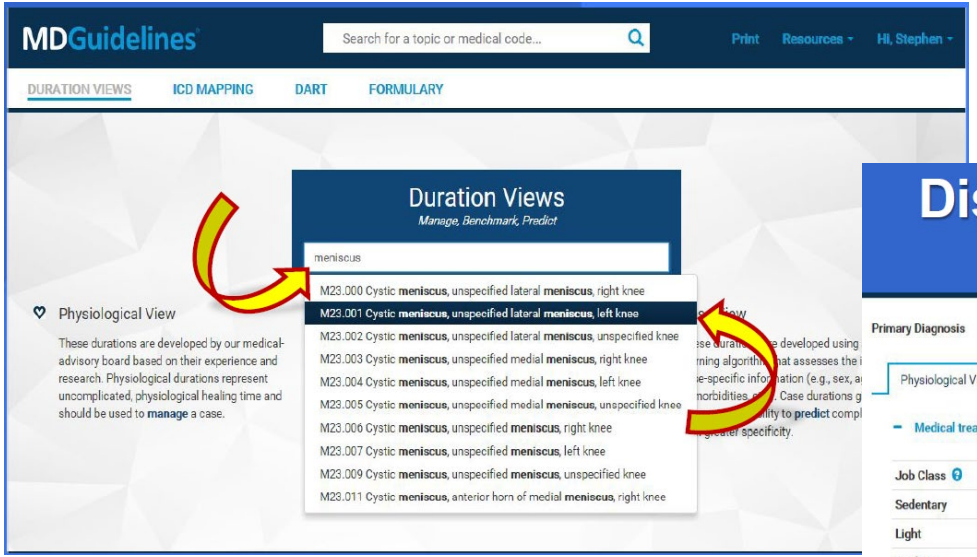
Neck & Spine Special Tests

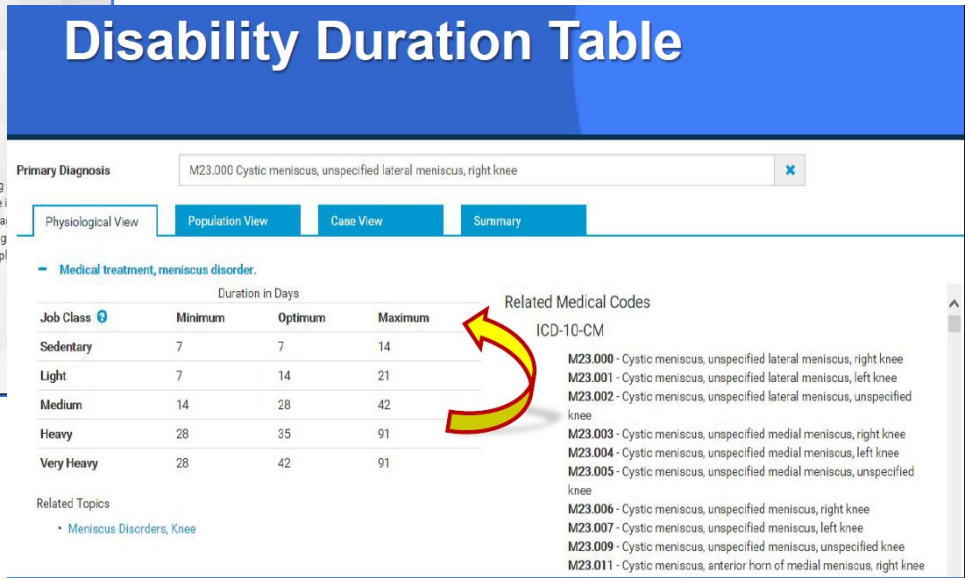
Table 1.12 Special Tests Listing, *continued*

Joint	Test	Assessment
Craniovertebral	Barré's Test	Vertebral artery insufficiency
	Dix-Hallpike Test	Vestibular impairment—accumulation of utricle debris
	Modified Sharp-Purser Test	Excessive translation of atlas
Cervical Spine	Compression Test	Brachial plexus injury
	Hyperabduction Maneuver (Wright Test)	Thoracic outlet compression
	Spurling's Test	Nerve root irritability
	Stress Test	Brachial plexus injury
Sacroiliac Joint	Gaenslen's Test	Sacroiliac lesion, hip pathology, or L4 nerve root lesion
	Yeoman's Test	Problem at the sacroiliac joint

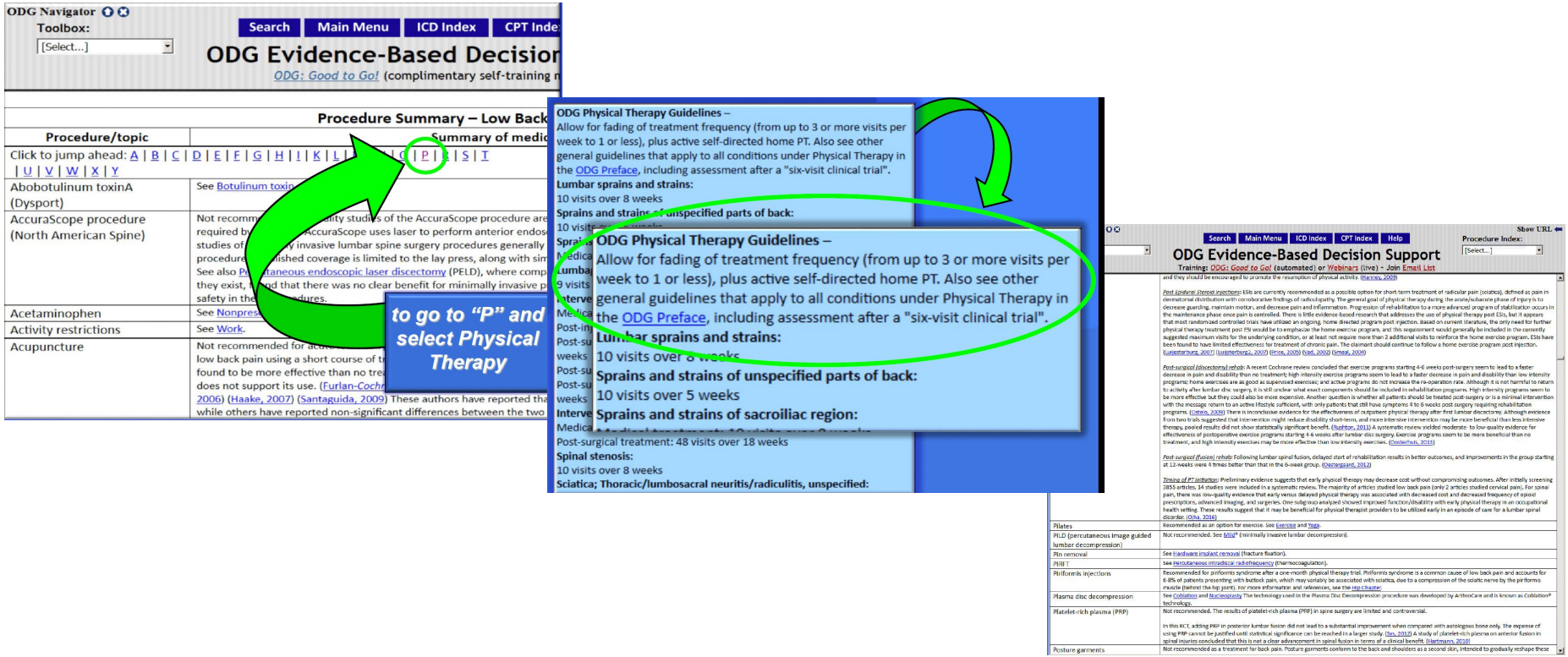
"The results of your physical exam are fine, except for your reflexes: They're more 'dog-like' than 'cat-like'."

Evidence-Based Medical Treatment and RTW Guidelines: MDGuidelines (MDG) - https://www.mdguidelines.com/





Evidence-Based Medical Treatment and RTW Guidelines: Official Disability Guidelines (ODG) - https://www.mcg.com/odg/



Evidence-Based Medical Treatment and RTW Guidelines: Official Disability Guidelines (ODG) - https://www.mcg.com/odg/

State Adoptions

- Arizona
- Indiana
- Kansas
- Kentucky
- Montana
- New Mexico
- North Dakota
- Ohio
- Oklahoma
- Tennessee
- Texas

Poll Question

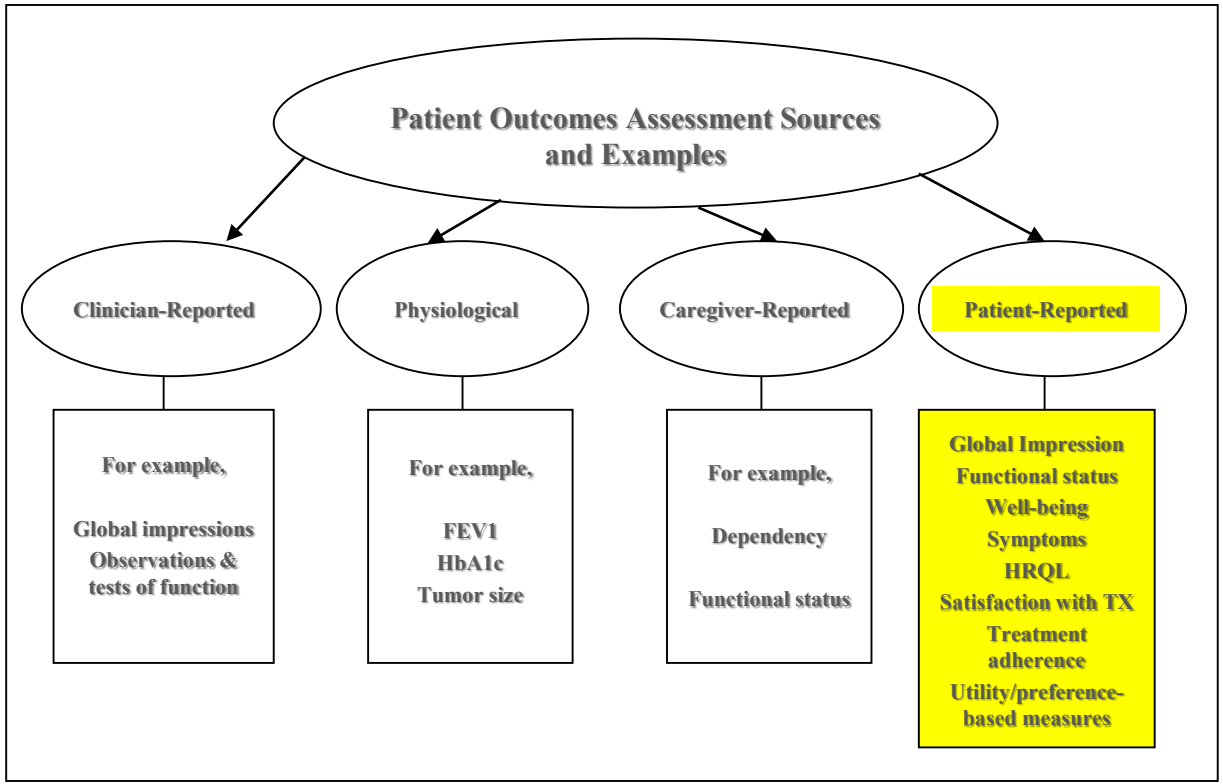
Patient Reported Outcomes (PROs)

- Provide feedback regarding the effectiveness of Tx as it pertains to patient needs
- Guide progress of treatment plans
- Used in medical research

What is a PRO?

- "Patient-reported outcomes represent the patient's report of a health condition and its treatment" (Acquadro et al. Value in Health 2003;5:522-531)
- "Any report coming directly from patients (i.e., study subjects) about a health condition and its treatment" (FDA Draft PRO Guidance)

Categories of Patient Outcomes



Source: Acquadro et al. Value in Health 2003;5:522-531

Major concepts measured in PROs

1. Health-related Quality of Life (HRQoL)

Represents the patient's evaluation of a health condition and its treatment on their daily life, including:

- physical function
- social function
- emotional function
- vitality
- psychological
- role function
- well-being
- health status, etc.

Major concepts measured in PROs

2. Patient satisfaction

- Evaluation of treatments
- Patient's preference
- Healthcare delivery systems and professionals
- Patient education programs
- Medical devices

Major concepts measured in PROs

3. Physical functioning

Physical limitations and activity restrictions, including:

- walking
- mobility
- sleep
- self-care
- sex
- disability

Major concepts measured in PROs

4. Psychological state

- Positive or negative affect and cognitive functioning, including:
- anger
- alertness
- self-esteem
- sense of well-being
- distress
- coping

Major concepts measured in PROs

5. Signs and symptoms

Reports of physical and psychological symptoms or sensations not directly observable, including:

- energy
- fatigue
- nausea
- irritability

Major concepts measured in PROs

6. Social functioning

- limitations in work or school,
- participation in community.

7. Treatment adherence

- reports or observations of actual use of treatments.

Major concepts measured in PROs

8. Utility or usefulness (perceived ability of something to satisfy needs or wants.)

Measure the strength of patient preferences, for example, how important various factors are to patients, such as:

- symptoms
- pain
- psychological health.

The impact of new treatments on these concepts and therefore on quality of life (QoL), can be calculated.

Using Questionnaires or Surveys

PROs are measured with questionnaires or surveys that are:

- completed by the patients themselves,
- completed by the patient in the presence of the researcher/clinician
- completed by the researcher/clinician through face-to-face interview or by telephone interview.

There are strengths and weaknesses to the different approaches to collecting information.

Poll Question

Important aspects to be considered in PROMs

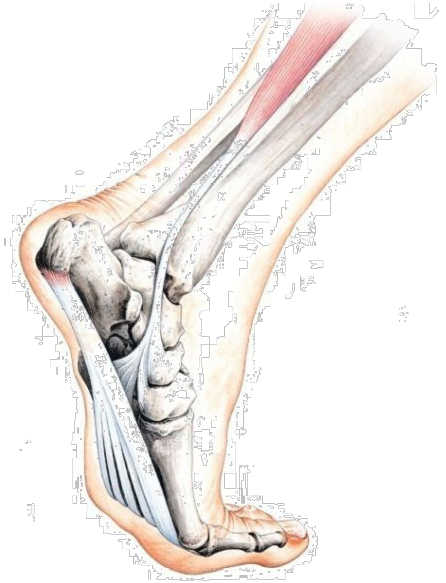
Property	Description
Reliability	Measurements are repeatable and consistent, and must distinguish between changes in response and changes due to errors in administration
Validity	
Face validity	Measures what it is intended to measure
Criterion validity	Measurements of aspects that are actually important to patients
Content validity	The extent to which an instrument covers all key dimensions of relevance
Construct Validity	Measurements reflect what is happening in reality
Responsiveness	Change in measures in response to change in HRQoL
Practicality	Measurements are easily obtained, and the instrument is easy to administer.
Interpretability	Significance of measurements are understood by clinicians or researchers rather than patients and others

Outcome Measures: General Quality of Life

- Veterans RAND 12
- PROMIS (PROMIS 10 or CAT)
- EuroQol-5D (EQ-5D)

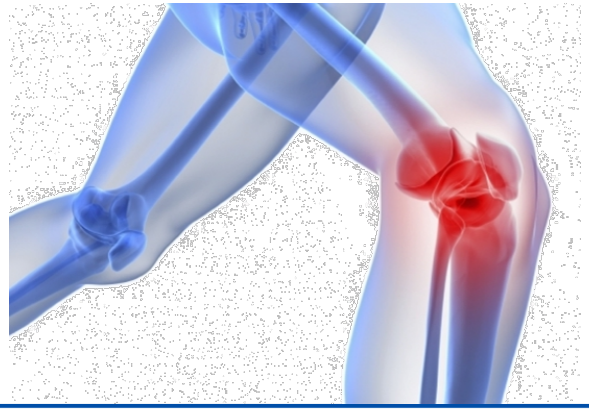
Outcome Measures: Foot & Ankle

- Foot and Ankle Ability Measure (FAAM)
- Foot and Ankle Disability Index (FADI)



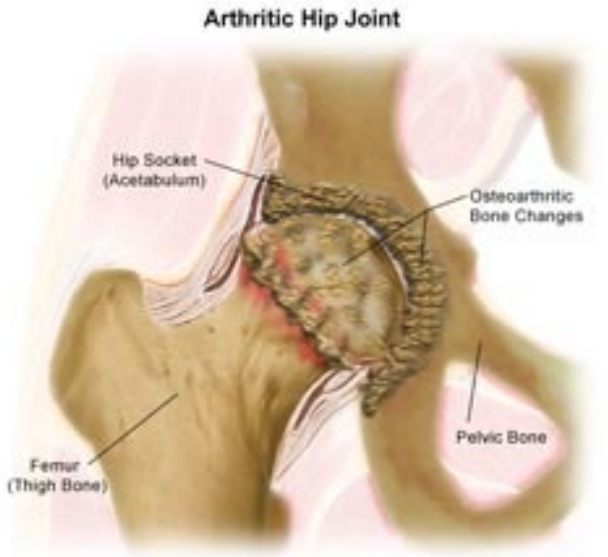
Outcome Measures: Knee

- Anterior Cruciate Ligament
  - International Knee Documentation Committee (IKDC) Subjective Knee Form (Pedi-IKDC)
  - Marx Activity Rating Scale
- Osteoarthritis
  - Knee Injury and Osteoarthritis Outcome Score (KOOS)
  - Knee Injury and Osteoarthritis Outcome Score Jr. (KOOS Jr.)



Outcome Measures: Hip

- Osteoarthritis
  - Hip Disability and Osteoarthritis Outcomes Survey (HOOS)
  - Hip Disability and Osteoarthritis Outcomes Survey Jr. (HOOS Jr.)

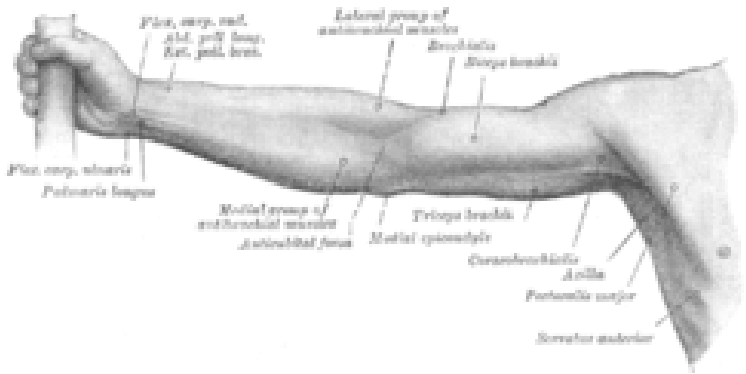


Outcome Measures: Shoulder

- American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form (ASES)
- Oxford Shoulder Score (OSS)
- Disabilities of the Arm, Shoulder and Hand (DASH)
- Western Ontario Shoulder Instability Index (WOSI)
- Constant-Murley Score (CMS)
- Functional Shoulder Elevation Test (FSET)
- 'Shoulder Pain and Disability Index' (SP'ADI)
- UCLA Shoulder Score
- Simple Shoulder Test (SST)

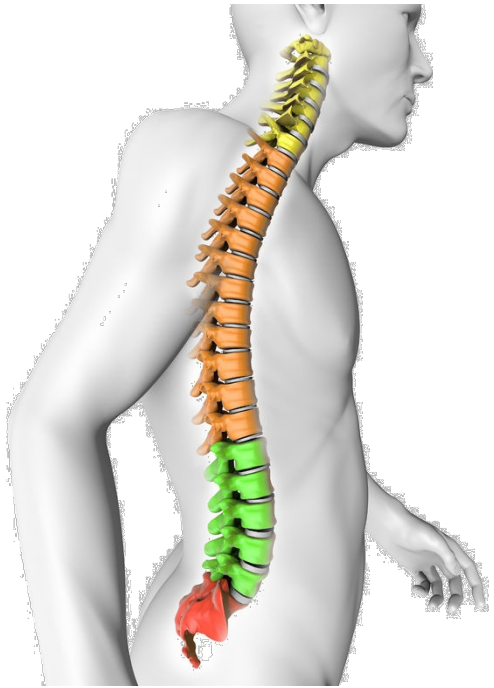
Outcome Measures: Elbow, Wrist & Hand

- Elbow
  - Disabilities of the Arm, Shoulder, and Hand Score (DASH)
  - Quick-DASH
- Wrist
  - Disabilities of the Arm, Shoulder, and Hand Score (DASH)
  - Quick-DASH
- Hand
  - Disabilities of the Arm, Shoulder, and Hand Score (DASH)
  - Quick-DASH



Outcome Measures: Spine

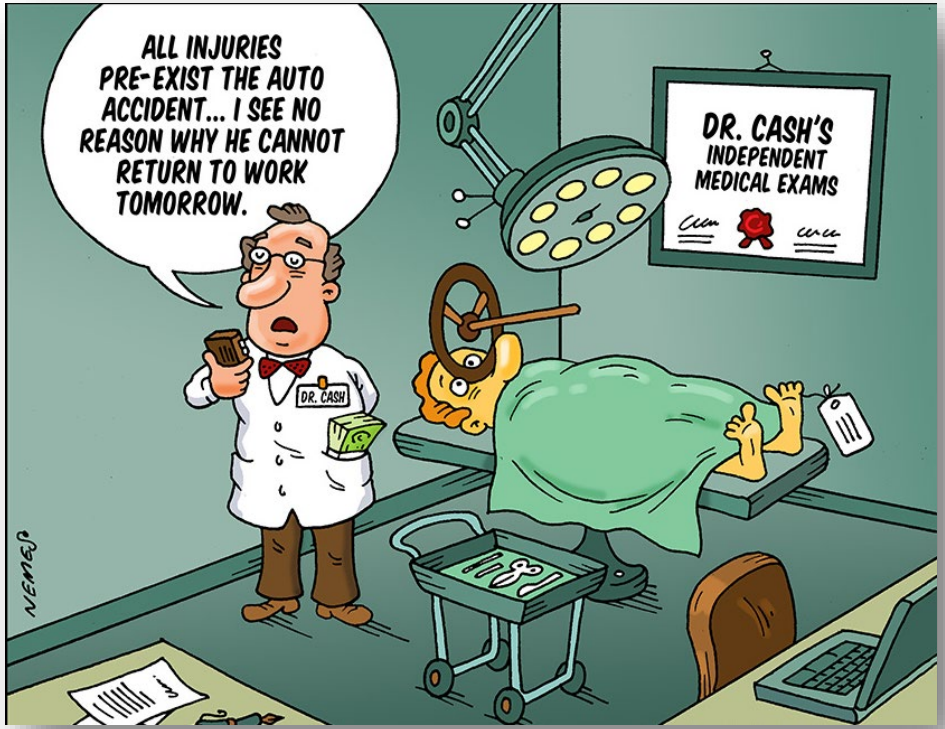
- Oswestry Disability Index (ODI)
- Neck Disability Index (NDI)



In Summary

- IMEs are performed by physicians who are independent from the requestor
- The Tx Designated Doctor System is designed to prevent bias
- IMEs provide 2nd opinion, clarify clinical questions, MMI and RTW recommendations
- IME is a single opportunity for detailed, comprehensive and objective exam
- IMEs provide closure and guidance in disputes
- IME have some general requirements in all states re. notification, scope, and reimbursement
- Reports on MMI and RTW are based on EBP.
- ROM, Reflexes, MMT, posture, Gait, ADLs are all required for FCE & RTW
- Electronic and standard measurement tools are available to the physician and should be used to standardize recommendations

Questions



THANK YOU

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