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Student Resources

Extended Physical Exam Assessment

Adapted and cited from:

Goldberg, Charlie. "Physical Exam Checklists." UC San Diego's Practical Guide to Clinical Medicine, The Regents of the University of California, 2020, https://meded.ucsd.edu/clinicalmed/checklist.html.

Extended Physical Exam Assessment

Any approach should:

1. Cover all aspects of the examination such that you have a reasonable chance of identifying pathology that might be present.

2. Be readily reproducible, allowing you to perform the exam the same way, all the time.

3. Keep patient gymnastics to a minimum (i.e. limit the number of times that the patient has to get up and down).

4. Link together sections which, although disconnected physiologically, are connected spatially. For example, inspection and examination of the feet for edema and peripheral arterial disease is part of the cardiovascular exam yet is described below following the exam of the abdomen.

5. Allow you to be efficient and perform the exam with an economy of movement (i.e. minimize the number of times that you pick up and put down instruments, move from one side of the patient to the other, etc.).

It will take time, thought and practice before you come up with a system that works for you. I encourage you to experiment while choreographing your own moves. If you can write it from memory, then you're a step closer to gaining mastery of this material.

Recognize that when caring for patients, the exam is somewhat modularized, with physicians performing selected aspects (e.g. cardiac, abdominal, pulmonary) to investigate particular symptoms. For example, evaluation of a 20-year-old with knee pain after an injury would be limited to a detailed lower extremity exam, as exploring other regions (e.g. heart, lung) in this situation would be very unlikely to reveal important information. Conversely, an older person with a chief complaint of "weakness" (a concern with many possible explanations) would require a comprehensive evaluation. Knowing which examination module(s) to apply in any situation takes practice and experience, something that you will gain in the coming years.

Recognize that there are many additional maneuvers (not described below), which would be appropriate in specific clinical situations. Pelvic, breast, male genital, rectal and detailed musculoskeletal/joint exams have been omitted.

Extensive screening exam below (not comprehensive):

Begin by asking the patient to put on gown privately and sit. Wash your hands.

General:
- Make any General Observations about the patient's appearance – ex. are they clean, disheveled, holes in clothes, etc.
- Measure vitals: heigh, weight, respiratory rate, blood pressure, oxygen levels w/ pulse oximeter
- Measure pulse, both radial arteries for rate, rhythm – ex. normal, bounding
- Examine hands, fingers, nails

Head and Neck:
- Observation face, head, neck & scalp
- Palpation of lymph node, parotid and salivary gland regions
- Assess auditory acuity (crude test hearing loss) [If hearing loss, perform Weber & Rinne Tests 512 Hz fork (CN 8) **(*special test)**]
- Ear: external and internal (otoscope)
- Nose: observation, nares/mucosa (otoscope)
- Oropharynx:
    - Inspect w/ light from otoscope & tongue depressor → uvula, tonsils, tongue, mucosa
    - "Ahh" to help see back of throat and observe tongue [should rise symmetrically; will deviate to normal side if weakness present (CN 9 + 10)]
    - Inspect teeth & salivary gland ducts
- Thyroid: Observation, palpation

Eye Exam, Including Ophthalmoscopy:
- Observe external eye structures – lid, sclera, pupil, iris, conjunctiva
- Visual acuity (hand-held card – CN2)
- Visual fields (confrontation – CN 2)
- Extra-ocular movements (CN 3, 4, 6)

Using Ophthalmoscope:
- Check pupillary response to light – direct and consensual (CN 2 & 3)
- Red reflex
- Retinal exam – identify optic disc, arteries, veins, and macular area.

Pulmonary:

Observation and Inspection:
- General observation of breathing, note if using accessory muscles/general respiratory effort
- Not shape of chest and spine

Palpation:
- Assess chest excursion
- Assess tactile fremitus **(*special test)**

Percussion:
- Percuss posterior lung fields, top to bottom comparing side to side
- Identify amount of diaphragmatic descent with inhalation **(*special test)**
- Percuss right antero-lateral chest (middle lobe) and anterior lobes (bilateral)

Auscultation:
- Listen w/diaphragm to posterior lung fields, top to bottom → comparing left w/right
- Listen to right middle lobe area, anterior lung fields, over trachea.
- Assess for egophony, bronchophony, whispered pectoriloquy **(*special test)**

Cardiovascular:
- Drape appropriately, examiner stands on right side of patient's body
- Patient lying w/ head of table elevated ~ 30°

Observation & Palpation:
- Inspect precordium – visible PMI, other contours
- Palpation of RV and LV (heaves, thrills); Determination of PMI

Auscultation:
- S1 and S2 in 4 valvular areas w/diaphragm; note rate, rhythm
- Try to identify physiologic splitting of S2
- Assess for murmurs, characterize if present
- Assess for extra heart sounds (S3, S4) w/ bell over LV

Carotid artery: (if indicated)
- Gentle Palpation
- Auscultation

Internal Jugular Vein: (if indicated)
- Measure jugular venous pressure

Abdomen:
- Lay patient flat. Drape appropriately – allow exposure of abdomen but not rest of body

Observe & inspect abdomen:
- Shape, scars, color, symmetry, protrusions

Auscultation:
- Listen w/diaphragm to 4 quadrants, begin in RUQ
- Note quantity and quality of bowel sounds
- Listen for bruits centrally & over renal arteries **(*special test)**

Palpation:
- Palpate all 4 quadrants superficially, begin in RUQ
- Palpate all 4 quadrants deeply
- Try to identify liver edge (on inspiration)
- Palpate region of spleen
- Palpate area of aorta **(*special test)**

Percussion:
- Percuss all 4 abdominal quadrants and liver span
- Percuss area of spleen and stomach

Lower Extremities (continuation of C/V):

Assess femoral area: (if indicated)
□ Palpation for nodes and femoral pulse
□ Auscultation femoral artery (for bruits) **(*special test)**

Assess Knees (non-mechanical exam):
□ Check for color and swelling
□ Palpate popliteal artery pulse

Assess Ankles/Feet:
□ Check color and temperature
□ Check for edema and check capillary refill
□ Check for dorsalis pedis artery and posterior tibial artery pulses

Neuro:

Sensory testing of all 4 limbs:
□ Pain – pinprick test
□ Light touch – cotton ball test
□ Proprioception – hold distal joint of finger or toe and move it up or down, side to side gently, patient indicate direction
□ Vibration – tap 128 Hz tuning fork + localize to body parts

Motor testing (patient seated):
□ Muscle bulk of major groups (note any atrophy)
□ Assess tone of major groups
□ Strength of major groups – have patient oppose your gentle pressure on shoulders, forearms, wrists, hand, hips, knees, ankles

Assess reflexes:
□ Biceps/Triceps/Brachioradialis
□ Patellar
□ Achilles
□ Babinski assessment

Assess Coordination/Balance:
□ Observe Gait – walk straight, heel – toe walk
□ Romberg test – assess balance by have patient stand with arms to sides or crossed in front of body with eyes open first then closed, watch for instability
□ Have patient perform finger → nose test, heel → shin test, rapid alternating hand movements, hand pronation → Supination

Assess Cranial Nerves:
□ CN 1 – assess smell with alcohol wipe
□ CN 2 – visual acuity, visual fields (see Eye Exam section)
□ CN 2 & 3 - pupillary response to light (see Eye Exam section)
□ CN 3, 4, & 6 – extraocular movements (see Eye Exam section)
□ CN 5 - sensory & motor face [use cotton ball to assess facial sensation; have patient clench teach and palpate temporalis and masseter muscles for motor strength]; corneal reflex (sensory 5, motor 7) – [only conduct if instructed/under supervision]

- CN 7 – ask patient to wrinkle forehead, smile and/or puff cheeks
- CN 8 – do hearing assessment (see Head and Neck section)
- CN 9 & 10 – assess gag reflex, palate (see Head and Neck section)
- CN 11 – have patient turn head against resistance, shrug shoulders
- CN 12 – assess tongue movement – ask patient to stick out tongue

Mental Status Exam:
- Level of consciousness – ex. alert, awake, disoriented, drowsy
- Orientation to time, place, person and situation [if patient oriented to first 3, can write as AOx3]
- Attention – serial 7s: subtract 7 from 100 several times
- Memory - 3 objects (cat, number 7 and table), have patient repeat immediately and after 5 minutes
- Abstract thinking- similarity and difference between orange and ball.
- Mood - as described by the patient, noted in quotes.
- Affect - observed by examiner could be congruent or incongruent to described mood – meaning patient says they are happy but physically looks sad
- Speech - rate, tone, production
- Thought process - linear, goal directed or circumstantial, tangential, disorganized
- Thought content - delusions, suicidal or homicidal ideations/intent/plan
- Insight- good, partial, poor
- Judgment - what would you do if you found a sealed, addressed, stamped envelope on the ground?

***Special test** denotes a maneuver that would only be done in select circumstances based on a patient's symptoms and/or clinical presentation.