

## NUTRITION-FOCUSED PHYSICAL EXAM: Bilateral Muscle Wasting and Subcutaneous Fat Loss

Bilateral Muscle Wasting				
	Technique	Well-Nourished	Mild/Mod Malnutrition	Severe Malnutrition
<b>Upper Body</b>				
<b>Temple</b>	Observe patient straight on, have patient face and observe side to side (Inspect / Palpate)	Able to see / feel well-defined muscle (slight bulge or be flat)	Slight depression	Hollowing, scooping depression; brow bone prominent
<b>Clavicle</b>	Observe patient straight on with arms at their sides, uprights with erect back (Inspect / Palpate)	Males: bone not prominent, Females: bone visible but not prominent	Males: bone visible, Females: bone with some protrusion	Protruding, prominent bone
<b>Shoulder/ Deltoid</b>	Inspect patient with arms at their sides (Inspect / Palpate)	Roundness, curves at shoulder / neck	Acromion process may slightly protrude, shoulders developing some angles	Bones prominent, significant squaring of shoulders, acromion process clearly visible
<b>Scapula</b>	While sitting or standing, arms against side (Inspect / Palpate)	Bone not prominent, no significant depressions	Mild depression or bone may show slightly	Prominent, visible bone; depressions between ribs, scapula & shoulder, or spine
<b>Interosseous</b>	Observe back of patient's hand, have them move thumb & forefinger back and forth (Inspect / Palpate)	Muscle protrudes, could be flat in well-nourished females	Slightly depressed or flat	Flat or depressed area between thumb and forefinger
<b>Lower Body*</b>	<i>*Not as sensitive an indicator as upper body</i>			
<b>Thigh</b>	Sit with feet propped up on low stool / bed / chair, bent at knee (Inspect / Palpate)	Quadriceps well-rounded, no depressions	Mild depression along inner thigh, upper leg appears thin	Significant depression of inner thigh region, upper leg obviously thin
<b>Knee</b>	Sit with feet propped up on low stool / bed / chair, bent at knee, (Inspect / Palpate)	Muscles protrude, difficult to see bones	Kneecap (patella) less prominent; less muscle definition surrounding the patella	Bones prominent and extend beyond quadriceps muscles; little sign of muscle around patella
<b>Calf</b>	Sit with feet propped up on low stool / bed / chair, bent at knee (Inspect / Palpate)	Well-developed bulb of calf muscle thin, no muscle definition	Less bulging of the muscle, yet has some shape and slight firmness on palpation	Thin, no muscle definition
Subcutaneous Fat Loss				
	Technique	Well-Nourished	Mild / Mod Malnutrition	Severe Malnutrition
<b>Orbital Fat Pads</b>	Stand in front of patient, Inspect / Palpate below eyes	Slightly bulged fat pads	Somewhat hollow look, slightly dark circles	Hollow look, depressions, dark circles, loose skin
<b>Triceps</b>	Arm bent to 90° angle, Use thumb and forefinger to gently pull down, pinch fat and skin, not muscle (Palpate)	Able to pinch ample fat tissue	Able to pinch some fat tissue; not ample	Very little space between folds, fingers touch
<b>Anterior Ribs</b>	Standing position (if possible), patient to press hands against a solid object, observe / palpate the lower rib region	Chest is full; ribs are not visible, ample fat tissue around ribs	Ribs apparent with mild depressions between them	Ribs very apparent, depressions prominent, skin over ribs appears stretched