

CLINICAL SKILLS: ASSESSING NUTRITIONAL STATUS

- Wash hands
- Introduce self
- Permission - ask to examine patient
- Expose down to underwear
- Reposition lying flat

General inspection:

- Around the patient for:
 - Nutritional supplements
 - 'Nil by mouth' (NBM) signs
- Patient as a whole
 - Comfortable?
 - General body habitus/body mass index (BMI)
 - Is there food at the bedside? Are meals unfinished?
 - Do they have nutrition supplements on their table?
 - Do they have a naso-gastric (NG) tube in situ
 - Do they have 'Total Parenteral Nutrition' (TPN) running - usually a covered plastic bag on a drip stand, running through a long line (PICC line/Hickman line/central line)
 - Do they have intravenous fluids running?

Specific inspection:

- Hands:
 - Nails, for:
 - Clubbing (could be in keeping with Cystic Fibrosis, Crohns Disease, or causes of cachexia such as malignancy or tuberculosis)
 - Koilonychia (iron deficiency)
 - Leukonychia (low albumin)
 - Xanthomata (hypercholesterolaemia)
- Arms, for:
 - Loose skin over upper arms suggestive of rapid weight loss?
 - An erythematous rash (patches, blisters, excoriation marks) over extensor aspects (elbows, knees, buttocks) in keeping with 'dermatitis herpetiformis' (Coeliac Disease)
- Face, for:
 - Hair
 - Rough and wiry?
 - Eyes, for:
 - Corneal arcus (hypercholesterolaemia)
 - Xanthelasma (hypercholesterolaemia)
 - Xerophthalmia - reduced tear formation. May be due to vitamin A deficiency
 - Conjunctival pallor (anaemia)
 - Icterus/jaundice (liver malfunction, associated with alcoholic liver disease/autoimmune liver disease)

- Mouth
 - Angular stomatitis (vitamin deficiency)
 - Glossitis (vitamin/mineral deficiency)
 - Aphthous ulcers (in keeping with Crohns Disease)
 - Gums
 - Gingivitis?
- Neck
 - Goitre?
 - May be caused by Iodine deficiency
- Abdomen
 - Thin patient?
 - Palpate for ascites (which can be due to low albumin states, such as malnutrition or liver failure)
- Legs
 - Bowing of the legs (low Calcium or Vitamin D)
 - Pitting leg oedema (due to low albumin)

To conclude the examination:

- Calculate the patient's Body Mass Index = (mass in kg)/(height in metres)²
- Check the patient's food chart and fluid balance chart
- Examine the patient's hydration state
- Thank the patient and offer to help them get dressed
- If there is evidence of a specific nutritional deficiency then you could offer to further investigate as appropriate:
 - Iron deficiency (depending on other factors): oesophagogastroduodenoscopy (OGD) and colonoscopy
 - Vitamin B12 deficiency: Shilling test
 - Mixed deficiency: Coeliac serology
- If there is evidence of a specific nutritional deficiency then investigate for consequences of this, e.g:
 - Full blood count and haematinic blood tests (Iron, Vitamin B12, Folate)
 - Bone radiographs or DEXA scan for osteomalacia