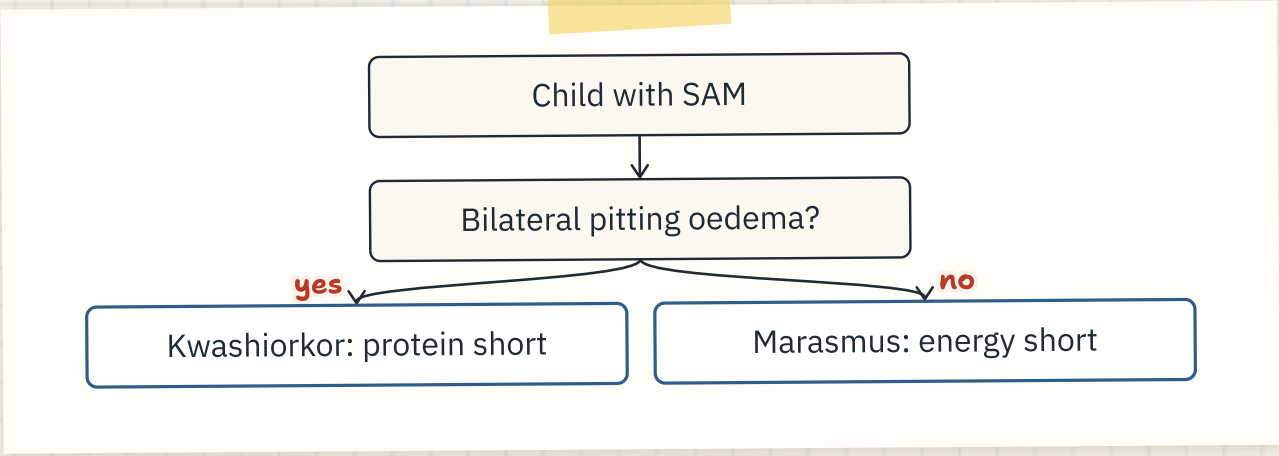
Kwashiorkor vs marasmus

Protein or total energy: what is missing?



Step by step

1. Severe acute malnutrition: z < −3, or MUAC < 11.5 cm, or oedema.
2. Look for bilateral pitting oedema of the feet and legs.
3. Oedema: kwashiorkor (protein). Wasting without oedema: marasmus (total energy).
4. Textbook oedema: low albumin, low oncotic pressure. Fatty liver: low apoB-100, no VLDL export.
5. Restart feeding with care: refeeding syndrome.

	Marasmus	Kwashiorkor
Deficit	Total energy	Protein more than energy
Oedema	None	Defining sign
Body	Severe wasting, skin folds	Muscle partly kept
Liver	Not described	Enlarged, fatty
Albumin	Higher than in kwashiorkor	Lower
Behaviour	Often hungry	Irritable, apathetic

What is missing and what you see

Round is not healthy

Marasmus: the whole diet is short

Kwashiorkor: protein is short, oedema is the sign

Exam traps

- The round, swollen child is the sicker one, not the better fed one.
- The scale can mislead: oedema fluid adds weight (WHZ −2.1 can still be SAM).
- Oedema and fatty liver mechanisms are textbook teaching; research says they are not fully understood.

Kwashiorkor vs marasmus: protein vs energy deficiency

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/vitamins-nutrition/kwashiorkor-vs-marasmus

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
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