

Full blood count

In the investigation of blood diseases, the simplest test is a **full blood count (FBC)**. A full blood count measures the following in a sample of blood:

- the amount of haemoglobin
- the number of the different cells-**red blood cells** (erythrocytes), **white blood cells** (leucocytes) and **platelets** (thrombocytes)
- the volume of the cells
- the erythrocyte sedimentation rate (**ESR**) – a measurement of how quickly red blood cells fall to the bottom of a sample of blood.

Anaemia

Anaemia is one of the commonest diseases of the blood. It may be due to:

- **bleeding** – loss of blood
- excessive destruction of red cells
- low production, for example because the diet is lacking, or **deficient in**, iron (Fe).

A medical student has examined an elderly patient with a very low level of haemoglobin and is discussing the case with her professor:

Professor: What's the **most likely diagnosis** in this case?

Student: Most probably carcinoma of the bowel with **chronic blood loss**.

Professor: What's **against** that as a diagnosis?

Student: Well, he hasn't had any change in his bowel habit, or lost weight.

Professor: What else would you **include** in the **differential diagnosis** of **severe anaemia** in a man of this age?

Student: He might have leukaemia of some sort, or **aplastic anaemia**, but that's **rare** – it would be very unusual. Another cause is **iron deficiency**, but he seems to have an **adequate** diet.

Professor: OK. Now, there's another cause of anaemia which I think is more likely.

Student: Chronic bleeding ulcer?

Professor: Yes, that's right. But what about **pernicious anaemia**? Can you **exclude** that?

Student: Well, he's got none of the typical neurological symptoms, like paraesthesiae.

Pernicious anaemia

Jordi Pons, the medical student from Barcelona, has made some language notes in his textbook.

<p>Pernicious anaemia (PA) is a condition in which there is atrophy of the gastric mucosa with consequent failure of intrinsic factor production and vitamin B12 malabsorption. The onset is insidious, with progressively increasing symptoms of anaemia. Patients are sometimes said to have a lemon-yellow colour owing to a combination of pallor and mild jaundice caused by excessive breakdown of haemoglobin because of ineffective red cell production in the bone marrow. A red sore tongue (glossitis) is sometimes present. Patients present with symmetrical paraesthesiae in the fingers and toes, early loss of vibration sense, and progressive weakness and ataxia. The spleen may be palpable.</p>	<p>onset = beginning insidious = slowly developing pallor = lack of colour mild = slight jaundice = bilirubinaemia breakdown = division into smaller parts bone marrow = soft tissue in the cavity of bones symmetrical = each side the same vibration sense = ability to feel vibrations progressive = continuing to develop palpable = can be felt with the hand</p>
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Find words in the box with opposite meanings. onset

adequate	unlikely	mild	common	insidious	for
against	severe	rare	sudden	inadequate	likely

Make word combinations using a word from each box.

- bone
- differential
- insidious
- iron
- pernicious
- progressively
- vibration

- diagnosis
- sense
- onset
- marrow
- increasing
- deficiency
- anaemia

Complete the sentences.

1. A 39-year-old man presented with a history of _____ abdominal distension over a period of six months.
2. Blindness may be caused by vitamin A _____.
3. The bleeding and purpura are caused abnormal _____ function.
4. The white cell count is normal so we can _____ acute leukaemia.
5. The yellow colour of her skin and conjunctivae is probably due to _____.
6. There was a _____ mass in the right upper quadrant of the abdomen.
7. Treatment is aimed at restoring fluid balance with _____ intravenous fluids.
8. The anaemia may be due to increased red cell _____.

Complete the conversation:

Professor: What is against the diagnosis of pernicious anaemia on physical examination?

Student: The problem started quite suddenly. So it didn't have the typical (1) _____
 _____. He doesn't have any skin (2) _____ and he doesn't have
 (3) _____ paraesthesiae, or absent (4) _____ sense, and I couldn't
 feel his spleen.

Professor: What about his tongue?

Student: His tongue was normal and not inflamed or (5) _____.

Express your idea.

List the causes of anaemia mentioned in the conversation above. Then choose another condition that you encounter regularly and make a similar list of the causes in English. Use the index to help you.