

SPORTS ANEMIA



■ ■ ■ Description

Anemia is a condition in which there is decreased hemoglobin in the blood. Hemoglobin is the oxygen-carrying molecule of the body, and decreases in hemoglobin mean muscles and internal organs do not get as much oxygen as they would if the hemoglobin concentration were normal. Anemia has many different causes; some are nutritional, such as iron or vitamin B₁₂ deficiency, and others are genetic, such as sickle cell disease. Sports anemia is a condition caused by increased blood volume. The concentration of hemoglobin appears to be low but is not.

■ ■ ■ Common Signs and Symptoms

- Usually, no symptoms
- Slight decrease in hemoglobin concentration on blood tests (less than 11.5 g/dL in females and less than 13 g/dL in males)
- Normal blood tests if training is stopped for 3 to 5 days
- Changes in hemoglobin concentration usually proportional to training intensity
- No changes in other blood tests (mean corpuscular volume [MCV], ferritin, haptoglobin)

■ ■ ■ Causes

Sports anemia is caused by an increase in plasma volume. It is usually seen in endurance athletes. The cause is unknown, but it may be an adaptation to training.

■ ■ ■ Risk Increases With

- Increased training intensity and volume

■ ■ ■ Preventive Measures

No preventive measures are necessary.

■ ■ ■ Expected Outcome

No problems are expected as a consequence of this condition. Some believe it is an adaptation to training. Others believe it is a condition that decreases sports performance because it decreases oxygen-carrying capacity of blood.

■ ■ ■ Possible Complications

No complications of sports anemia are known.

■ ■ ■ General Treatment Considerations

This condition is generally not treated. Athletes may be asked to refrain from training for 3 to 5 days and have blood tests repeated to produce normal results.

■ ■ ■ Medications

No medications are indicated. Some athletes will resort to blood doping or use of erythropoietin to increase hemoglobin concentration. These athletes risk significant side effects.

■ ■ ■ Activity

No activity restrictions are indicated.

■ ■ ■ Diet

No changes in diet are indicated.

■ ■ ■ Notify Our Office If

- There is any change in performance after this diagnosis is made
- There is suspicion of blood doping or use of erythropoietin
- Chest pain, shortness of breath, palpitations, or difficulty breathing occurs

Notes:

(Up to 4400 characters only)

Notes and suggestions