

Sickle Cell Trait and Damage to the Spleen: Get the Facts!



People with sickle cell trait (SCT) are generally healthy and rarely have problems with their spleens. However, some people with SCT experience a serious condition called splenic infarct, the death of tissue in the spleen.

What is a spleen?

The spleen is an organ in the upper far left part of your abdomen, to the left of your stomach. It contains white blood cells that fight germs. Your spleen also helps control

the amount of blood in your body, and it destroys old and damaged blood cells. Tissue death in the spleen or other damage to the spleen could cause your body to lose some of its ability to fight off infections.

What could cause the tissue of my spleen to die?

Tissue death in the spleen, called splenic infarct, is due to a lack of blood flow or a lack of oxygen in the tissues of the spleen.

I have SCT. Could I develop splenic infarct?

Possibly. Although splenic infarct is very rare, it occurs more often in people with SCT.

What might increase my risk for developing splenic infarct?

Splenic infarct occurs more often among people with SCT

- At high altitudes (greater than 1100 meters, or 3600 feet, above sea level);
- Who have severe dehydration (not drinking enough fluids); and/or
- Who engage in very high-intensity physical activity.

What are warning signs that could signal a problem with my spleen?

Symptoms of tissue death in the spleen include

- Sudden onset of pain in the upper left side of the abdomen that does not go away (pain may also be felt in the left shoulder);
- Chest pain with breathing;
- Nausea; and
- Fever.



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention



Is it safe to fly or travel to high altitudes if I have SCT?

Yes. You can safely travel in airplanes because modern aircraft are pressurized.

In addition, you can safely travel to, and exercise at, high altitudes when taking the precautions listed below.

What steps can I take to avoid having tissue death in my spleen?

You can

- Stay hydrated by drinking more water than usual;
- Pace yourself with frequent rest while exercising, particularly at high altitudes; and
- Start out exercising slowly, and gradually build up to the desired amount of exercise in order to give your body time to adjust; this is particularly important after recent arrival in an area at high altitude.

What should I do if I think I could have a problem with my spleen?

If you experience pain on the upper left side of your abdomen that does not go away, seek medical attention immediately. Inform your care provider that you have SCT. If you are at high altitude, ask to be transported to a lower altitude, if you are stable.