
Blood Transfusions: How much blood do you need?

Getting a blood transfusion in the hospital can save your life. You may need a lot of blood if you are bleeding because of an injury or illness. When a hospital transfuses blood, they may give two units.

But this isn't always necessary if the transfusion is not for an emergency. There are times when one unit of blood is enough.

Using more blood units may increase risks.

Blood transfusions are generally very safe. But there are risks including:

- Cardiac overload—severe shortness of breath from overloading the heart with fluid
- Lung injury
- Infections

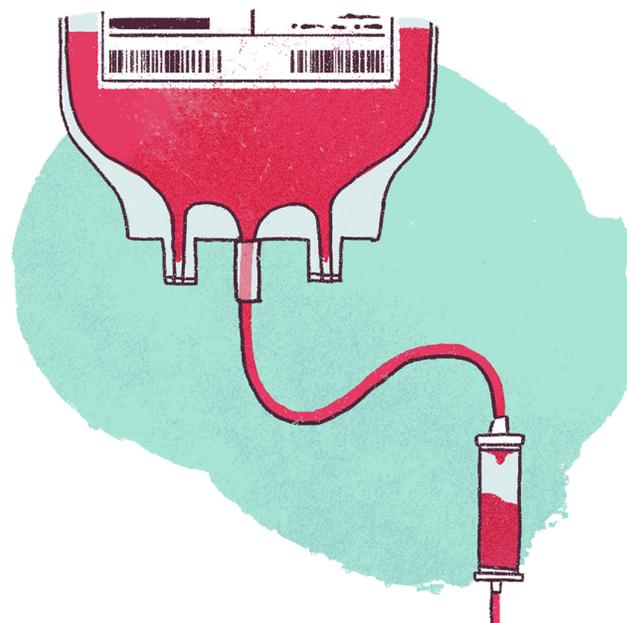
These problems can happen with any transfusion. But the risks are higher if you get more blood.

Extra blood units may not be helpful.

A normal hemoglobin level is 120 to 160 grams per litre (g/L), depending on your age and gender. But 70 g/L is usually a safe level. Your health care provider should use just enough blood to get to this level. Often, one unit of blood is enough.

Recent research found that:

- Many patients with levels above 70 or 80 g/L may not need a blood transfusion.



- One unit of blood is usually as good as two, and it may even be safer.
- Some patients in intensive care may do better when they receive less blood.

Use blood wisely.

Using blood wisely ensures it is available when needed most. And because of the risks of transfusions, your health care provider should consider:

- Transfuse only after considering safer or simple options;
- Transfuse based on your overall symptoms and rather than just your hemoglobin level; and
- Transfuse one red blood cell unit at a time if you are a non-bleeding patient.

About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

How this pamphlet was created:

This pamphlet was adapted with permission from a similar pamphlet used in the US Choosing Wisely campaign, organized by the ABIM Foundation. Modifications were made to ensure relevance for a Canadian audience. Canadian reviewers of this pamphlet included Dr. Wendy Levinson and Dr. Yulia Lin from Choosing Wisely Canada.

This pamphlet is for you to use when talking with your health care provider. It is not a substitute for medical advice and treatment. Use of this pamphlet is at your own risk.

Do patients ever need more than one unit?

Some people may need more blood. You may need more than one unit if:

- You have bleeding that is not well controlled, such as bleeding that continues during surgery.
- You have severe anemia and unstable chest pain. (“Unstable” means that your symptoms keep changing.)
- You are receiving regular blood transfusions as an outpatient.