

# Toxic shock syndrome

## What is Toxic Shock Syndrome?

Toxic shock syndrome (TSS) is a rare, but serious illness that can often be life-threatening. TSS develops suddenly after certain types of bacteria enter the bloodstream and produce toxins (poisons). It can quickly affect several different organs including your liver, lungs and kidneys. Since TSS develops quickly, emergency medical help is needed as soon as possible.

Although TSS has been linked to tampon and menstrual cup use by menstruating individuals, it can occur in anyone. Only half of the cases of TSS are linked to menstruation.

If you think you have TSS, call **9-1-1** or go to the nearest emergency department right away.

## What causes TSS?

TSS is caused by toxins made by some types of bacteria. The 2 bacteria that make toxins that can cause TSS are:

- *Staphylococcus aureus* (SA) (commonly known as staph)
- Group A *Streptococcus* (GAS)

For more information on group A *Streptococcus*, see [HealthLinkBC File #106 Group A streptococcal infections](#).

*Staphylococcus aureus* are found in the nose or on the skin of up to 30 per cent of people. They are also found in the vagina of about 10 to 20 per cent of women. These bacteria are usually not harmful, and only cause mild nose, throat or skin infections.

In some cases, SA infections can result in TSS. SA makes several toxins and when the toxins enter your bloodstream you can have a severe

reaction causing TSS. The toxins may enter your bloodstream through a wound to the skin, including a surgical wound. TSS can also occur in menstruating individuals using tampons or a menstrual cup. Most people, however, are not affected by the toxins because they have developed antibodies to them.

## What are the symptoms of TSS?

Symptoms of TSS include flu-like symptoms such as fever, headache and muscle soreness. These symptoms will develop quickly and are severe. Other symptoms may include pain at the site of a wound, vomiting and diarrhea, signs of shock including low blood pressure and light-headedness, shortness of breath and a sunburn-like rash.

In general, TSS symptoms can develop as soon as 12 hours after a surgical procedure. Symptoms usually develop in 3 to 5 days in individuals who are menstruating and using tampons or menstrual cups.

If you experience the above symptoms after using tampons, a menstrual cup or after a surgery or skin injury, contact your health care provider immediately.

## What should I do if I think I have TSS?

Toxic shock syndrome requires immediate emergency care in a hospital. Call **9-1-1** or go to the nearest emergency department right away if you think you have TSS.

If you experience any of the symptoms of TSS while using a tampon or menstrual cup, remove the tampon or menstrual cup and see your health care provider right away. Inform them that you were using a tampon or menstrual cup when the symptoms started.

## What is the treatment for TSS?

TSS cannot be treated at home. Hospital care is required to treat a staph infection and related complications caused by TSS, such as shock. You will be given antibiotics to kill the bacteria and stop further release of toxins.

If the source of infection involves a tampon, menstrual cup, diaphragm or contraceptive sponge, it should be removed as soon as possible.

## Who is at risk of TSS?

TSS from a staph infection can affect anyone; however, some people are at greater risk of TSS than others.

Risk factors for TSS include:

- Past history of SA toxic shock syndrome
- Prolonged use of a tampon, especially the super absorbent type, or menstrual cup
- Use of contraceptive sponges, diaphragms or intrauterine devices
- Irritation and inflammation of the vagina, also known as vaginitis
- A burn, skin infection or injury, including a wound from surgery. Those who develop a SA wound infection after surgery may be at greater risk of TSS
- Recent respiratory infections, such as sinusitis, sore throat (pharyngitis), laryngitis, tonsillitis or pneumonia

Although menstruating individuals using tampons or a menstrual cup are at higher risk of TSS, tampons and menstrual cups do not cause TSS.

## Can TSS be prevented?

TSS can be prevented by keeping all burns, wounds, scrapes and animal or insect bites clean.

If you use tampons, menstrual cups, diaphragms, cervical caps or contraceptive sponges, you can prevent TSS by:

- Following the directions on package inserts, including directions on cleaning and replacement
- Washing your hands with soap before inserting or removing a tampon, menstrual cup, diaphragm or contraceptive sponge
- Changing your tampon at least every 8 hours, or using tampons for only part of the day
- Wearing tampons/menstrual cups and sanitary pads at alternate times. For example, use pads at night and tampons during the day
- Using tampons with the lowest absorbency that you need. The risk of TSS is higher with super absorbent tampons
- Not leaving your diaphragm or contraceptive sponge in for more than 12 to 18 hours



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