

## Fevers and Infections



Fever refers to having a body temperature that is higher than the normal of 37.4°C, indicating that something is wrong within the body. It is common for people with cancer to develop fever, due to a number of reasons.

### ***Causes of Fevers***

- **Infections**

An infection is caused by the invasion and growth of germs (e.g. bacteria, viruses, fungi) in any part of the body. Cancer treatment such as chemotherapy and immunotherapy can weaken the immune system for a short time, causing it to be more prone to infection. Infection is usually the most common cause of fevers in people with cancer.

- **Cancer**

Some cancers are more likely to cause fevers than others. For instance, certain types of lymphomas can cause high body temperatures and night sweats without any obvious reason. Also known as “malignant fever” or “tumour fever”, these fevers come and go, and the reason is still poorly understood.

- **Certain medications** (e.g. targeted treatments, drugs to prevent bone loss)
- **Reaction to blood products**
- **Other medical conditions** (e.g. organ inflammation, blood clots)

### ***What you need to look out for***

- Body temperature of more than 37.4°C
- Chills and rigors (severe shivering)
- Feeling very tired and having generalised body discomfort
- Feeling confused or dizzy
- Flu- like symptoms
- Cough with or without phlegm
- Difficulties in breathing
- Sore mouth
- White coating in the mouth or on the tongue
- Vomiting
- Severe abdominal discomfort or pain
- Urination problems (e.g. painful urination, cloudy or blood in urine, very little or no urine for  $\geq 12$  hours)
- Unusual vaginal or penile discharge
- Diarrhoea
- Any body area with redness or swelling
- Pain, redness or discharge from catheter site
- Any other abnormal and prolonged symptoms, which cause concern

### ***How it can be treated***

The treatment for fever will depend on what is causing it. For instance, fever caused by infections will be treated by antibiotics, antiviral or antifungal medications, depending on the type of germ found in your body. To manage fever caused by the body's reaction to blood transfusion, your nurse will stop your blood transfusion and give you some medications to curb the reaction.

To determine the cause of your fever, your doctor will ask you a series of questions such as when the fever started, any associated symptoms and medications you are currently taking. Your doctor will also examine you and may order tests (e.g. x-rays, blood tests) to establish the exact cause or find out if there are any complications. To bring down your temperature and relieve your discomfort, you may be given paracetamol or an anti-inflammatory medication to take regularly until the fever goes away. If your white cell counts are low, your doctor may also prescribe you with growth factor drugs to increase your white cell counts to fight infection.

### **What you can do**

Having a fever can be uncomfortable and worrying, and it is important to **inform your doctor or care team early** if you develop one, so that he or she can determine the cause and give you appropriate treatment early. Even a low grade fever may lead to more serious complications if left untreated, so **do not** wait for other signs before you seek medical attention.

Below are some tips you may find helpful in preventing infections and managing fever, especially if you are undergoing treatment for your cancer:

✓	✗
<p data-bbox="135 649 414 683"><b>Prevent infections</b></p> <ul data-bbox="183 705 821 1892" style="list-style-type: none"><li data-bbox="183 705 821 862">• Ensure personal hygiene by cleaning your mouth twice a day, bathing daily and washing your hands especially after using the toilet</li><li data-bbox="183 929 821 1041">• Keep healthy by eating a well-balanced diet and drinking adequate amounts of fluids</li><li data-bbox="183 1108 821 1265">• Ensure smooth bowel movements and avoid constipation and straining as it can cause tears along the anal region, which in turn can lead to infection</li><li data-bbox="183 1332 821 1512">• Follow your doctor or nurse's instruction on care of your device (port/catheter) and keep it clean and dry. Maintain personal hygiene by washing your hands before handling the device</li><li data-bbox="183 1579 821 1713">• Ensure food safety by washing hands thoroughly during food preparation. Consume only fully cooked foods</li><li data-bbox="183 1780 821 1892">• Discuss with your doctor before going for any of the following: immunization, dental work, other invasive procedures</li></ul>	<ul data-bbox="917 683 1476 1870" style="list-style-type: none"><li data-bbox="917 683 1476 974">• Avoid large crowds, people who have recently received vaccinations (e.g. for chicken pox, smallpox, measles/mumps/rubella, or shingles), or anyone with signs of infection (e.g. flu). Wear a mask where unavoidable</li><li data-bbox="917 1019 1476 1198">• Avoid placing fresh flowers and live plants in your room, and refrain from gardening and handling soil or fertilizers</li><li data-bbox="917 1243 1476 1355">• Avoid changing cat litter or cleaning up bodily excretions from animals</li><li data-bbox="917 1400 1476 1534">• Avoid eating raw, undercooked, unpasteurised, mouldy or spoilt foods</li><li data-bbox="917 1579 1476 1668">• Avoid sharing personal items (e.g. toothbrush, razor) with others</li><li data-bbox="917 1713 1476 1870">• Avoid sharing towels, drinking glasses with others in your household without washing them first with soap and water</li></ul>

	<ul style="list-style-type: none"> <li>• Avoid cuts or skin breaks. Take care when using sharp objects, and use moisturizers to prevent cracks especially if your skin is dry</li> <li>• Avoid using tampons, suppositories or enemas unless approved by your doctor</li> </ul>
<p><b><i>Managing fever</i></b></p> <ul style="list-style-type: none"> <li>• Take your medications to bring down body temperature as prescribed</li> <li>• Drink cool fluids or suck ice chips</li> <li>• Remove extra clothing and blankets</li> <li>• Apply cold compress, or have a tepid bath or sponge down</li> <li>• Keep the room well ventilated by opening the window or by using a fan</li> <li>• Rest as much as possible</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid the use of multiple layers of blankets or clothing to increase your body temperature. One of the first symptoms of high fever is chills and rigors – this means you will feel very cold and start to shiver. You may naturally want to keep yourself warm, but the inside of your body is in fact very hot, and you should be bringing down your body temperature instead</li> </ul>

***When to call your cancer care team***

Please inform your doctor or nurse if:

- You develop any fever, especially if you are undergoing cancer treatment
- You notice any of the symptoms listed earlier
- Your fever or symptoms do not improve even after treatment

The below indicates possible severe infection, A MEDICAL EMERGENCY which requires **IMMEDIATE MEDICAL ATTENTION**, especially if you are undergoing cancer treatment: please go to your nearest hospital as soon as possible. Delayed treatment may result in serious or even life-threatening complications from infection:

- **Feeling very unwell**
- **Feeling confused or disoriented**
- **Severe shivering or muscle pain**
- **Not passing urine for 24 hours**
- **Feeling very breathless or dizzy**

If you have any questions regarding the above, please call Cancer Helpline at **+65 6225 5655** or approach your doctor or nurse for further details.

*The above contents are made available as part of TEMASEK FOUNDATION-ACCESS (Accessible Cancer Care to Enable Support for Survivors) PROGRAMME, a holistic care programme to support cancer patients during their care and recovery journey.*

*The contents have been approved by the Cancer Education Information Service, National Cancer Centre Singapore (NCCS), for people with cancer and their families and caregivers. However, this information serves only as a guide and should not be used as a substitute for medical diagnosis, treatment or advice. For specific medical conditions, please seek expert medical advice from your healthcare team.*

Brought to you by:

**TEMASEK**  
FOUNDATION



National Cancer  
Centre Singapore  
SingHealth