

マンガでわかる医療安全

入院中の 肺血栓塞栓症

には適切な予防が
必要です。

We need to take
appropriate
measures to prevent
**pulmonary
thromboembolism**
during your hospital
stay.



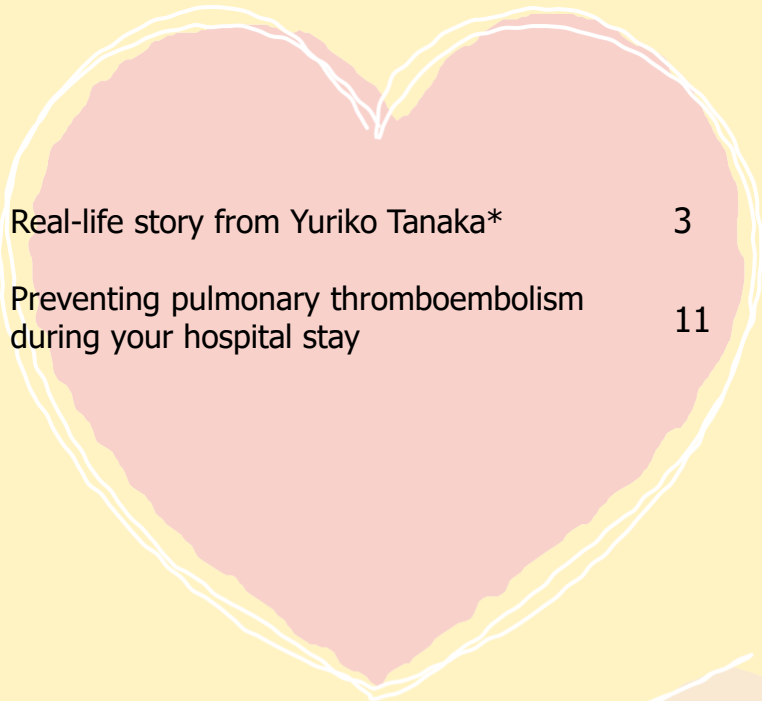

知って
いますか？
入院中の
エコノミー
クラス症

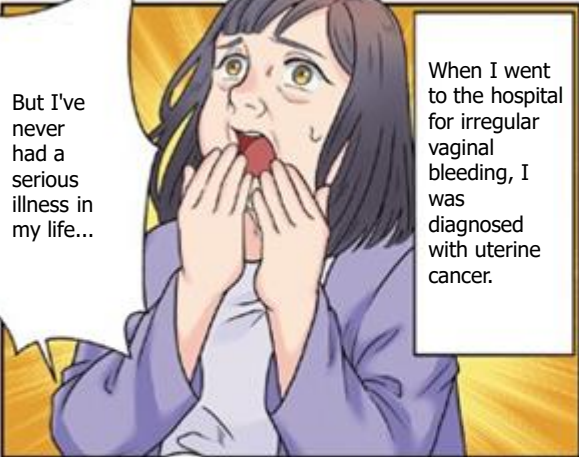
Medical Safety Education Comic

Did you know?
You can get
“economy class syndrome”
in the hospital, too !



Gunma University Hospital
Department of Healthcare Quality and Safety/
Department of Cardiovascular Medicine

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But I've never had a serious illness in my life...

When I went to the hospital for irregular vaginal bleeding, I was diagnosed with uterine cancer.

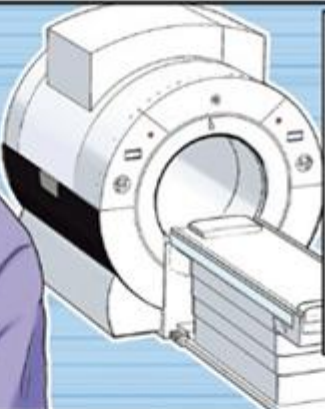


What?!


Yuriko Tanaka
(age 62)



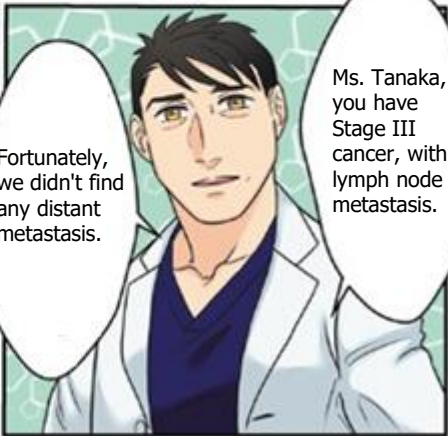
I haven't had surgery since my C-section...



I had to stay in the hospital for a while to have the cancer removed.

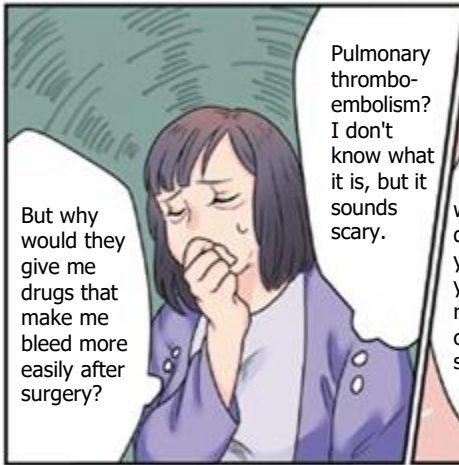


Now I'd like to go over some details about your hospital stay.

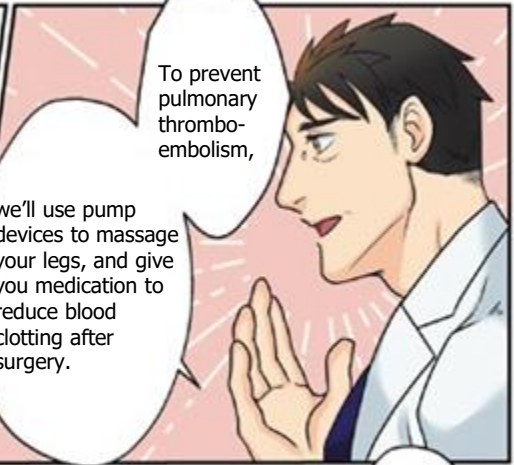


Fortunately, we didn't find any distant metastasis.

Ms. Tanaka, you have Stage III cancer, with lymph node metastasis.

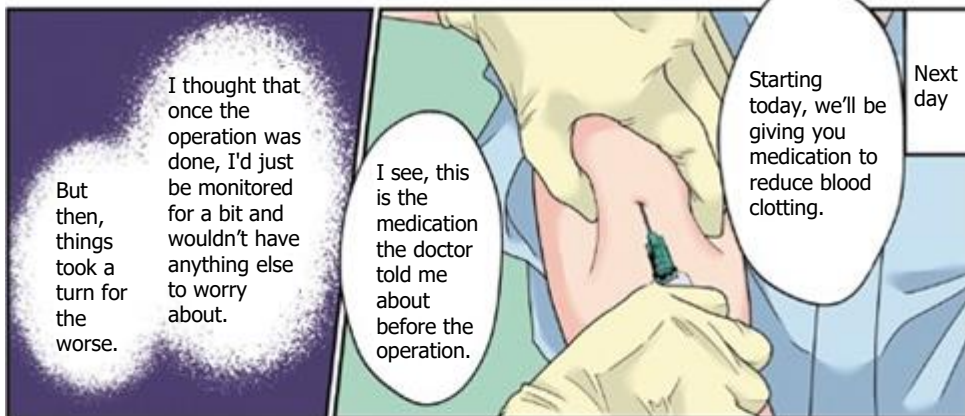


Pulmonary thrombo-embolism? I don't know what it is, but it sounds scary.



It seems they got it done safely while I was asleep under general anesthesia.









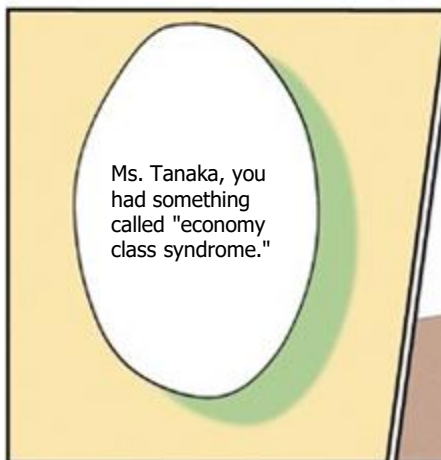
The cardiologist is here!

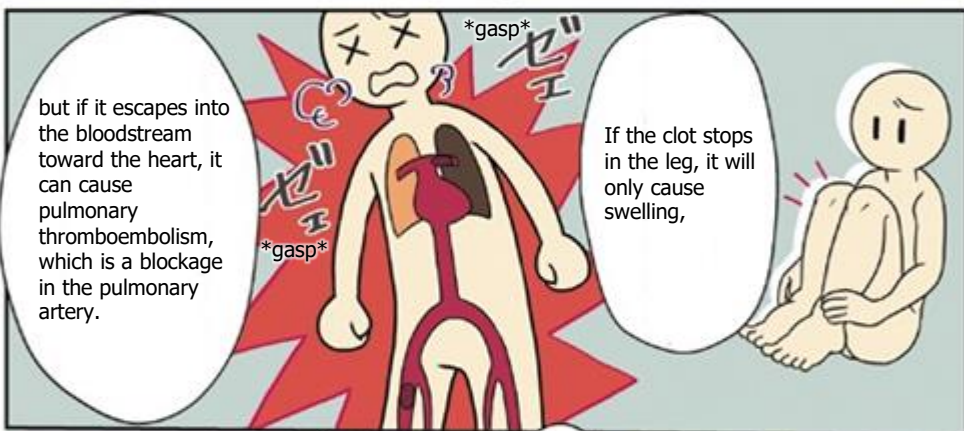
Can feel a pulse too.

She's conscious and alert.



A CT scan showed clots in both of my pulmonary arteries.





in the worst-case scenario you might even have died.

If we had done nothing to prevent it, a larger clot could have gotten into your bloodstream, and if you needed to go on a ventilator or ECMO,

This isn't something that's 100% preventable.

Light activity soon after surgery

血栓を防ぐため、足の運動や足踏み、歩行
Leg exercises, stepping, and walking to prevent blood clots



Compression stockings

足を圧迫して血流の停滞を予防する

Compress the legs to stop blood from pooling



Intermittent pneumatic compression devices

足を揉むように空気を送るシステム

System that uses pumped air to massage the legs



Blood thinners

血液を固まりにくくする薬を投与

Medication to prevent blood from clotting



There are four ways to prevent it.

This can happen in any kind of surgery, not just gynecological surgery.

I didn't know that.

I'm so glad these things you did prevented it from becoming too serious.

Pulmonary thromboembolism (economy class syndrome) in hospitalized patients

1. What is pulmonary thromboembolism (PTE)?

PTE is a disease where a blood clot (thrombus) blocks the arteries of the lungs. In most cases, the clot first forms in the leg veins. This is called "deep vein thrombosis" (DVT). The clot travels through the bloodstream to the heart and then to the pulmonary artery, causing PTE.

Another term for PTE is "economy class syndrome," because it can occur after sitting in a cramped economy-class airplane seat for a long time. **Once a clot progresses to PTE, the risk of death is very high.**

2. What are the symptoms of PTE?

(1) Difficulty breathing and rapid/irregular heartbeats (2) Chest pain (3) Fainting and shock (4) When accompanied by DVT: **pain, swelling, and changes in skin color in the affected leg.**

3. What situations increase the likelihood of PTE?

Prolonged bed rest can lead to PTE. Patients who are having surgery, need bed rest, or are unable to move after a fracture or traumatic injury are more likely to get PTE.

People with obesity and elderly adults are also considered to be at higher risk. In rare cases, abnormalities in coagulation (the blood's ability to clot) that are present at birth can also cause PTE.

4. Risk of PTE when having surgery

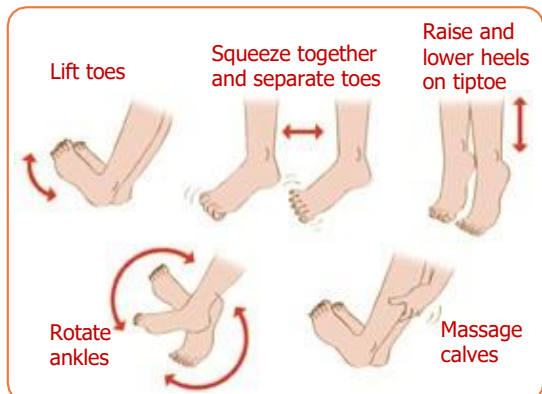
We comprehensively determine the risk of PTE for patients having surgery, based on the patient's individual risk factors for blood clots (including age, history of venous thromboembolism, paralysis) and with consideration to factors such as bleeding risk.

Your doctor will evaluate risk for your particular type of surgery.

Get your legs moving!

Ways to Prevent PTE

- (1) Light activity soon after surgery
- (2) Good fluid intake
- (3) Exercise therapy
- (4) Wearing compression stockings
- (5) Intermittent pneumatic compression
- (6) Medication (blood thinners)



Note to our Patients

Gunma University Hospital provides information on prevention of pulmonary thromboembolism to patients who are staying in the hospital for surgery or need bed rest for 48 hours or longer. We also ask for written informed consent to perform preventive measures.

Thank you for your understanding.



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