

Risk of Fat Embolism Syndrome

What is Fat Embolism Syndrome (FES)?

Fat embolism syndrome is a rare but serious problem that can happen after a bone breaks. When a bone breaks, tiny bits of fat from inside the bone can get into the blood stream. These tiny bits of fat can travel to the lungs, brain, and other parts of the body. It is important to know the signs of FES after any fall or injury – even a small one.

When can FES happen?

FES usually happens within 12-72 hours after a bone break. Broken bones can happen from falls or even minor injuries.

Warning Signs to Watch For:

Common signs include:

- Trouble breathing, breathing very fast, or feeling short of breath
- Sudden confusion, agitation, acting strangely, or not thinking clearly
- Small red or purple spots on the chest, neck, under arms
- Other possible signs: fever, fast heartbeat, or extreme sleepiness

What to Do in an Emergency:

If you think someone may have FES (trouble breathing, sudden confusion, or combination of symptoms above):

1. Go to the Emergency Room right away or call 911
2. Tell the medical team "This patient has Duchenne muscular dystrophy and recently had a fall or possible broken bone; we are worried about fat embolism syndrome."
3. Bring any home breathing equipment or a copy of the breathing care plan.

In the hospital, doctors give supportive care, such as help with breathing, heart monitoring, and treating any broken bones. There is no medicine to remove the fat droplets, but finding FES early improves chances of recovery. Most people will need to stay in the hospital for close monitoring.

How to lower the risk:

You can help reduce the chance of FES and improve outcomes by:

- Preventing falls as much as possible: Use the right wheelchair, transfer devices, and get help with transfers to avoid sudden twists or falls.
- Watching for broken bones: New pain, swelling, or not wanting to move an arm or leg – even after a small injury – should be checked with an X-ray.
- Teaching caregivers: Make sure anyone who regularly cares for the patient knows that any strong fall or sudden leg pain needs to be taken seriously. They should watch for FES signs over the next 1–3 days.

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