# What Are SPMs, and What Do They Do?

SPMs or specialized pro-resolving mediators are signaling molecules created in your body to conclude inflammation and repair damage. Certain conditions and inflammation-reducing medicines make it harder for your body to make SPMs, so it may make sense to supplement them.

- **Analogy:** To help imagine the inflammation process, picture a pipe leaking inside your wall. This can damage the surrounding structures and is best addressed early.
- **In your body:** Inflammation is triggered by injuries, infections, and other stressful conditions to your cells.

- **Analogy:** To start to fix the leak problem, you will need to make a hole in the wall to gain access to the pipe.
- **In your body:** Stressful conditions, like injuries, infections, or excessive exercise, send signals to the immune system for help. Immune cells called neutrophils come to the site to try to contain whatever caused the stress.
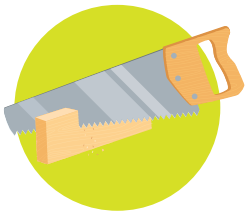
- **Analogy:** Once the damage from the leak has been contained, you can start to cut out the affected structures.
- **In your body:** Immune cells selectively kill cells that are infected or injured beyond repair. This creates the conditions for repair and regrowth to begin.

- **Analogy:** Now the mess needs to be cleared to make room for repair.
- **In your body:** Signals from SPMs tell neutrophils their job is done. SPMs tell other immune cells called macrophages to clean up debris and the mess from inflammation. Some medicines used to reduce inflammation also reduce your body's ability to make SPMs.

- **Analogy:** Once the mess is cleared, the broken pipe can be repaired and the wall patched.
- **In your body:** SPMs send signals to your macrophages telling them their job is done. SPMs signal your body to regrow and replace the cells lost to inflammation.
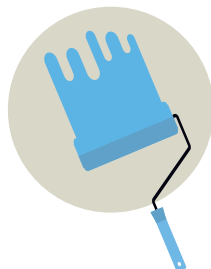
- **Analogy:** With the damage repaired, the finishing touches restore the wall to the original condition, as if nothing ever happened.
- **In your body:** SPMs signal the repaired tissue to resume normal activity.

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