

In some scans, a contrast agent (paramagnetic agent) may be injected into a vein.

This is usually administered after some initial scans have been performed, so that there are pre- and post-contrast scans.

The usual agent for spine disorder investigation is gadolinium.

The contrast agent should NOT be used in pregnancy or in patients with allergy to it.

Other medical problems:

- asthma: increased risk of allergic reaction
- anaemia: may be worsened
- low blood pressure: may be worsened
- epilepsy: increased risk of seizure
- heart disease: may be increased risk of irregular heart beat
- severe kidney disease: contrast agent not cleared from body as quickly: more side effects
- sickle cell disease: greater risk of blockage of blood vessels

Side effects of contrast agent;

Fairly common minor:

- changes in taste

- coldness at the site of injection
- headaches
- nausea
- unusual warmth or flushing of the skin

Less common/rare relatively minor:

- agitation/anxiety
- back pain
- burning/tingling/prickly sensation
- change in appetite
- change in sense of hearing or smell
- abdominal pain/discomfort; diarrhoea or constipation; bloated feeling/flatulence
- dryness of mouth or increased salivation; sore throat; thirst
- fever
- increased muscle tone, muscle pain/spasm; joint pain; tremor
- twisting or unusual body movements
- nosebleeds
- ringing or buzzing in the ears
- swelling of face, hands, lower legs or feet.
- Weakness/tiredness

Serious (need medical attention), uncommon/rare:

- Chest pain
- Fast/irregular heartbeat
- Confusion
- Seizures
- Allergic reaction: swelling of the face and throat, hives
- Spitting/coughing up blood; black, tarry stools
- Unusual tiredness/weakness (severe)
- Wheezing/tightness in chest; difficulty breathing

These side effects have been reported with similar agents to gadolinium: not all have been reported for gadolinium specifically but as it is similar to other agents, it is possible that the above side effects may occur.

Gadolinium has been used extensively to facilitate diagnosis of patients with Failed Back Surgery Syndrome, as it enhances scar tissue but not disc tissue, which therefore allows distinction to be made between recurrent disc herniation (treatable by surgery) and scar tissue (fibrosis) which tends not to be amenable to surgery.

However, more recently, more high resolution scanning techniques have rendered the use of gadolinium less necessary for this purpose.

Alert: <http://www.fda.gov/cdrh/safety/neurostim.html>