Intravenous (IV) Contrast Material

What is IV contrast material, and why is it used?

**Contrast material** — or just “contrast” — is a clear liquid that highlights certain parts of your body on imaging tests. Although bones show up well on X-rays and other imaging tests, other organs — such as the kidneys, blood vessels, or brain — are not as easy to see. Because contrast shows up well, it also highlights whatever organ it enters.

Many diagnostic radiology tests use contrast, injected using an IV in your wrist or arm. Once it is in a vein, it passes through your blood to highlight the organ being tested. **Contrast material can make an imaging test much more effective** in identifying a problem or disease.

**Is contrast material safe?** Generally, contrast is extremely safe. But as with any medication, in very rare cases it can cause a severe reaction if you have allergies or certain medical conditions. Your healthcare providers will take precautions to minimize these risks.

How do I prepare for a test using contrast material?

- **Talk to your healthcare providers.** Before a test that uses contrast, tell your doctor or the radiology technician if:
  - You have ever had an allergic reaction to contrast or any medications
  - You have diabetes, kidney disease, asthma, cancer, or high blood pressure
  - You are being treated with chemotherapy or antibiotics, or have ever had dialysis

If you have any of these factors, your healthcare provider may do a blood test ahead of time and may change how the contrast is used.

- **Temporarily stop taking certain medications.** If you are taking any of the medications below, your healthcare provider will probably tell you to stop taking them:
  - **Pain relievers known as NSAIDs, such as ibuprofen or Aleve.** Don’t take them for 2 days before the test or for 2 days after the test.
  - **Metformin (a common diabetes medication).** Don’t take it the day of the test or for 2 days after the test.
  - **Diuretics (medications that make you urinate to relieve your body of fluids).** If possible, avoid taking any diuretic medication for 24 hours before the test.

- **Stop eating or drinking for about 3 hours** before the test.
What will having contrast feel like?

The experience of having contrast varies from person to person. Here’s what you might expect:

- **The IV.** To inject the contrast, a needle will be placed in your vein. You’ll feel a pinprick, no more painful than the average blood test.

- **Sensations during the injection.** During the injection, you MAY experience:
  - A warm feeling through your body
  - A metallic taste in your mouth
  - A light-headed feeling
  - A cold feeling in the arm or leg where the injection was placed
  - A brief period of nausea or vomiting
  - Itching or hives

Tell the healthcare provider performing the test if you experience any of these sensations. Usually they are minor and go away quickly. In very rare cases these side effects can be serious, so your healthcare providers will monitor you carefully.

What will happen afterward?

After a test that includes IV contrast, your kidneys will help to filter the contrast out of your body. Be sure to drink plenty of water afterward, unless your healthcare provider tells you otherwise.

Talking with your healthcare provider about benefits and risks

The table below lists the most common potential benefits, risks, and alternatives for using IV contrast in a procedure. Other benefits and risks may apply in your unique medical situation.

It is important to be aware of these risks and compare them with the benefits that the imaging test can provide. Talking with your healthcare provider is the most important part of learning about the risks and benefits.

If you have any questions, be sure to ask your healthcare providers.

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<th>Potential benefits</th>
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| **IV contrast:**         | There are risks with any kind of procedure or medication, including IV contrast. **But serious complications are rare.** Your healthcare providers will take precautions to prevent them. Risks include:  
  - Allergic reactions, including itching or hives, difficulty breathing, throat swelling, or swelling of parts of the body (extremely rare)  
  - Kidney problems, especially in patients who have kidney disease or diabetes (extremely rare)  
  - Temporary sensations:  
    - A surge of warmth  
    - Feeling cold at the site of the injection  
    - Feeling light-headed  
    - Metallic taste  
    - Nausea | Your doctor may choose to do the imaging test without using IV contrast. |
| Helps to highlight organs and other body structures in imaging tests |                                                                                           |                                                           |
| Can make an imaging test much more effective in identifying a problem or disease |                                                                                           |                                                           |