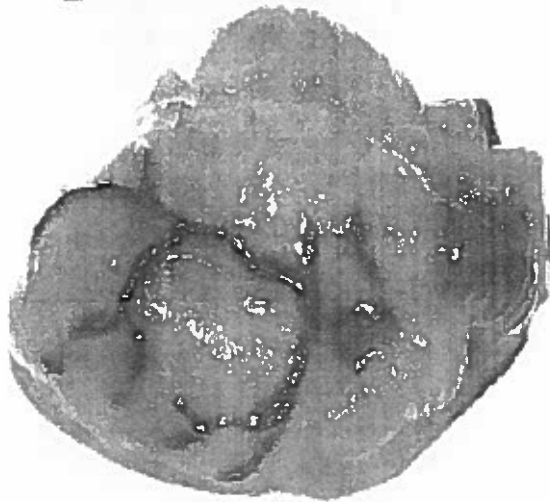




DISGUSTING ANATOMY HEART



Mold your own sticky, nasty, squishy heart! With this kit, you can create and paint your own heart while learning how your most important muscle works.

Then you can make an oversized eyeball to gross out everyone you know!

Adult Supervision Required

1. Read through all the instructions carefully before doing each activity.
2. Some of the activities require a stove or microwave to boil water. Adult supervision is *required* for these activities.

What's included in your kit:

- Heart mold
- Eyeball mold
- Gelatin, white pouch
- Cornstarch, white pouch
- Red food coloring
- Blue food coloring
- Green food coloring
- Paintbrush, fine tip
- Instruction booklet

What you'll need to get:

- Small saucepan
- Measuring spoon and cup
- Mixing spoons and bowls
- Clear cup or glass
- Plate
- Water
- Cooking oil or vegetable oil

Making your Realistic, Revolting Heart

What makes that heart of yours beat? Here's how to make a heart so foul your friends will be totally grossed out!

What you need from your kit:

- Clear plastic brain mold
- 3 tbs. gelatin
- Red, green, and blue food coloring
- 1/2 cup cornstarch

Get this, too:

- *Adult help*
- Medium-sized saucepan
- Measuring spoon and cup
- 3 cups water
- Cooking Oil
- Plate
- Large bowl

WARNING: Do not eat your heart. It is so gross it could make you sick!

Molding your heart:

1. Measure 3 cups of water and pour it into a medium saucepan. Have your adult helper heat it on the stove to a low boil.
2. Measure 3 tablespoons of gelatin and gradually add it to the boiling water while stirring. Continue stirring until the gelatin dissolves.
3. Remove the mixture from the heat and let it cool for half an hour.
4. Measure 1/2 cup of cornstarch and stir it into the mixture.
5. Put the saucepan back on the stove. Stir constantly and heat mixture over medium heat for 5 to 10 minutes.
6. Let mixture cool again for half an hour.
7. Place the heart mold in a large bowl to keep it level, and then apply a thin coat of cooking oil to the inside of the mold with your hand. Pour the mixture into the mold. Put the whole thing in the refrigerator to gel overnight.
8. To remove the heart from the mold, make sure it is cold and completely gelled. Then fill a large bowl with warm water and lower the mold into the water for a few seconds to loosen the gelatin. Place a plate over the mold and carefully turn the mold over. The heart will slide out onto the plate.

Now that you've made that super gross heart, find out how it works!

Get Pumped Up!

Your heart pumps blood through your whole body by contracting and relaxing – the movement of blood through your body is called **circulation**. The left side of your heart pumps blood with oxygen and energy to the rest of your body so your organs can work properly. Then your organs send blood with carbon dioxide and waste back to the right side of the heart. The heart then pumps this "dirty" blood to your lungs, which exhale the carbon dioxide and inhale new oxygen. The new oxygen goes back to the heart, and the cycle starts again – all in less than a minute!

How does the blood move around?

Blood moves through tubes called **vessels** that are attached to the heart. The vessels connected to the left side (that carry oxygen to the body) are named **arteries**. The vessels that bring blood with carbon dioxide to the right side are **veins**.

If you squeeze your heart, you can make it look like it's pumping blood. Eww, that's gross!

Painting your Heart

To paint your heart, you can use the food coloring provided by mixing a few drops in a small amount of water to produce paint. The only colors you need are red and blue, but you can use green, too, if you want. Paint the entire heart red and then go over the veins again with blue to be anatomically correct. Or, if you're feeling particularly grotesque, mix the red and blue until you get a heart-stopping purple. Which colors does it take to make brown? Experiment all you want – just how gross can the colors get?

Did you know?

Make a fist – your heart is only a little bit bigger than that!

Making Your Disgusting Eyeball

What You'll Need From Your Kit:

- Eyeball mold
- 2 tbs. Gelatin
- 3 tbs. Cornstarch
- Red, blue, and green food coloring

Get this, too:

- Measuring cup and spoon
- 2/3 cups water
- Saucepan
- Small bowl
- Plate

Molding Your Eyeball

WARNING: Do not eat your eyeball. You could get sick!

1. Measure 2/3 cups water and pour it into a small saucepan or microwave-safe bowl. Heat it on the stove or in the microwave until hot.
2. Measure 2 tablespoons of gelatin and gradually add it to the hot water while stirring. Continue stirring until the gelatin dissolves.
3. Allow mixture to cool for 15-20 minutes.
4. Measure 3 tablespoons cornstarch and stir it into the mixture.
5. Re-heat the mixture for a few minutes, until it becomes thick.
6. Let the mixture cool again for 15 minutes.
7. Place the eyeball mold in a small bowl to keep it level and then apply a thin coat of cooking oil to the inside of the mold with your hand. Pour the mixture into the mold. Put the whole thing in the refrigerator to gel overnight.
8. To remove the eyeball from the mold, make sure it's completely gelled and then fill a small bowl with warm water. Lower the mold into the water for a few seconds to loosen the gelatin. Be careful not to get the eyeball itself wet. Place a plate over the mold and carefully turn the mold over. The eyeball will slide out onto the plate.

Seeing with your eyes is like going to the movies!

How do those revolting eyeballs let you see the world around you? Well, light enters your eyeball and hits the *lens*, which acts like a movie projector in the cinema. In the movie theatre, light streams through the powerful projector lens to project images on the screen you see. Similarly, light streams through the lens in your eyeball and projects the images you see on your *retina* – your very own movie screen! Your retina then translates the light it sees into electrical signals that your brain can understand! Welcome to the movies – you're a star!

Now that you see how you see, you're ready to paint your monster-sized disgusting eyeball.

Painting Your Eyeball

To paint your eyeball, follow the directions you used to paint your heart to mix your "paint."

Your eyeball has a colorful center, called the *iris*. Your own eyes may be brown, blue, green, or gray, but your hideous gelatin eyeball can be any number of repulsive shades. If your gooey, oozy eyeball isn't gross enough, you can paint gruesome red veins on it. Blech!



Now that you've made a nasty heart and squishy eyeball, go disgust everyone you know with all the new info you've learned. Will you put your models on display, or leave them in the refrigerator to give someone a disgusting surprise? It's up to you!

Can't get enough *Disgusting Science*? Then be sure to also check out these other revolting kits from Scientific Explorer:



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