

# Good Vibrations

**Make a model eardrum to learn about how we use our ears to hear and why it's important to keep our ears healthy.**

## You will need:

- A large bowl
- A piece of plastic wrap large enough to stretch over the opening of the bowl
- A rubber band
- 20-30 grains of uncooked rice
- A baking tray or other noise-making objects



## Instructions:

1. To make a model of an eardrum, stretch the piece of plastic wrap over the opening of your bowl and use the rubber band to secure it into place. Make sure the wrap is on tightly. This wrap represents your eardrum.
2. Place about 20-30 grains of uncooked rice on top of the plastic wrap.
3. Now you need some noise. Hold the baking tray next to the plastic wrap and hit the tray to make a loud banging noise. You should be able to see the grains of rice jumping up and down. This is how your eardrums work – as sound reaches your ears, the eardrum vibrates and sends messages to your brain about the sounds you're hearing. How cool is that!
4. Experiment with different noisemakers or musical instruments to see if you can make your model eardrum vibrate.

What would happen if you had a tear in your eardrum? Would the grains of rice still vibrate if you had a hole in the plastic wrap?

**THINK!**

Otitis Media is the name of a middle-ear infection that causes fluid to build up behind the eardrum. If it is not treated, the fluid can cause a tear in the eardrum and result in hearing loss. Some children with otitis media need a small tube called grommets inserted into their ear to let the fluid drain out.

## Hear About Our Research

We know how important our ears are to communicate, play and learn. At Telethon Kids Institute, our researchers in the Ear Health team are working hard to understand what causes otitis media in children, to work out the best way to treat this infection.