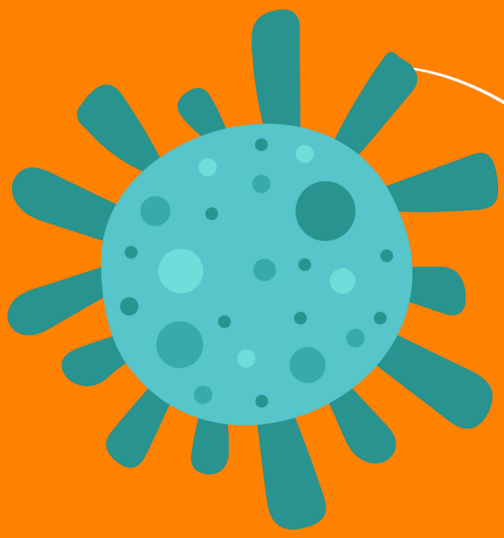
UNSW SYDNEY

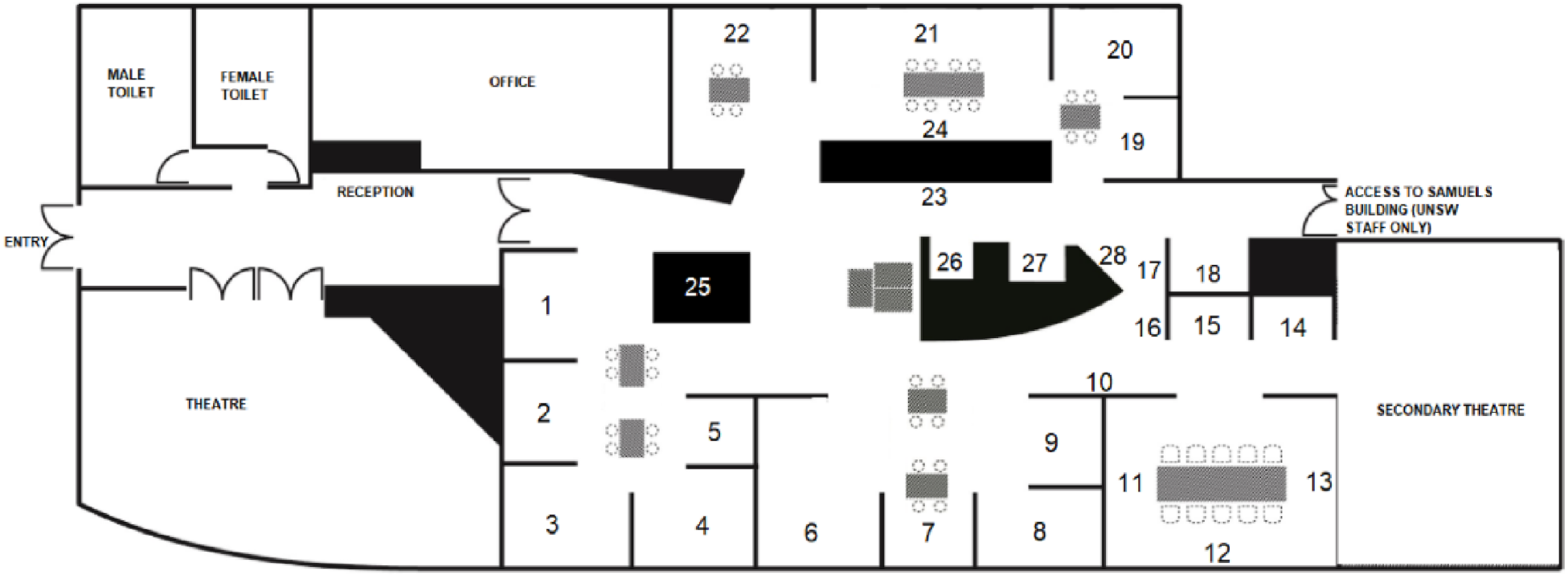
Museum of Human Disease



# DISCOVERING DISEASE

For children, families, and anyone else!

# Museum Map




## Guide to Museum Bays

1. Historical artefacts & diseases
2. Oral cavity & oesophagus
3. Stomach
4. Liver
5. Pancreas & biliary tract
6. Intestine
7. Brain & spinal cord
8. Heart
9. Library
10. Kidney
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17. Endocrine
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20. Inflammation & healing
21. Neoplasia (tumours)
22. Blood vessels
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25. Medical technology
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28. Multi-drug resistance

# WELCOME TO THE MUSEUM OF HUMAN DISEASE!

Inside the museum you will see about 1500 different specimens.

A specimen is something that has come from a living thing, and that has been preserved for you to look at. Our specimens are all from real people, so please be respectful of them.

This guide includes questions and facts that will help you explore the museum.

Some bays might not have a page that goes with them, but you can still have a look there.

If you have any questions or need help finding something, please ask our staff!

# BAY 1

Make sure to get a photo with Sammy the skeleton!

While you're here, feel her hands (but be gentle!). Feel your own hands and see if you can feel each of the small bones inside.

In this bay, try the activities on the wall! You can rearrange the cards here.

# BAY 3

Find the display showing how much sugar, salt and fat is in different foods. How much is in your favourite foods?

Which foods have the **most** sugar, salt and fat?

Which foods have the **least** sugar, salt and fat?

# BAY 4

The liver is an organ that helps remove wastes and dangerous substances out of our blood, as well as breaking down fats and oils from our food.

Your liver is about the size of your hand.

Compare specimens 1052 and 2961. How much bigger is 2961 than the other? Organs being the wrong size is one sign of disease.

# BAY 5

The gall bladder is a small organ that stores bile (a liquid that breaks down fats in our blood).

Sometimes, minerals can build up and cause gallstones - small rocks in the gall bladder!

Look at the different size and shape of the gallstones on display here and opposite Bay 1.

How many gallstones can you count in specimen 499?

# NEXT TO BAY 5

This collection of specimens (984, 985, 986, 987, 988, 990/991) are all from the same person. They show how cancer in one part of the body can spread to other parts.

This cancer started in the skin and spread to the rest of the organs shown here.

How many different organs can you see in this group?

# NEXT TO BAY 6

This teratoma is a type of cancer that grows different tissues.

What can you see growing inside the teratoma?

# BAY 6

Take a look at specimen 313. This is part of the colon, the end of the large intestine. It should be smooth, but because of a genetic mutation, is covered in polyps (the small round parts).

This disease is called polyposis, and gives you a high chance of developing colon cancer.

**Challenge:** How many polyps can you count before losing track?

# BAY 7

Specimen 681 is a glioma, a type of brain tumour. They cause problems by pressing on other parts of the brain.

This tumour is about 6cm wide, and made it difficult for the man it came from to speak, move and concentrate.

Can you see the tumour bulging out from the top of the brain? Which side is it on?

# BETWEEN BAYS 7 & 8

This is a polycystic kidney - a kidney where lots of holes full of fluid have formed. Our kidneys help keep our blood clean of waste.

Make a fist with your hand - this is about the size of your kidney. Now, compare it to how big this kidney is!

Have a look at the kidneys in Bay 10 (481 is a pretty normal size). How do they compare to the polycystic kidney?

# BAY 8

Our heart and veins have valves in them - small flaps of tissue that stop blood flowing backwards.

It is important that blood flows in the right direction so that it gets to every part of the body.

Specimen 3227 has an artificial valve. If a valve isn’t working properly, doctors can replace it with an artificial one to keep the heart healthy.

Can you see the artificial valve? Have a look at the other hearts and see if you can spot where the valves are (tiny flaps over holes between the spaces inside the heart).

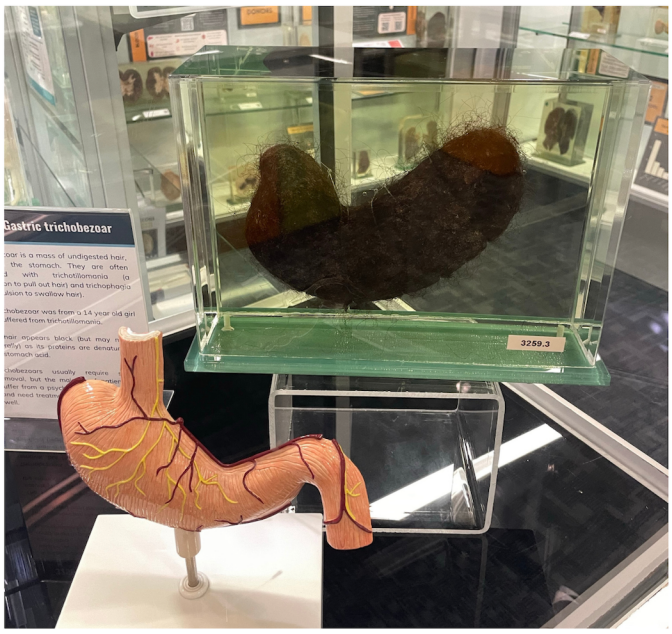
# NEXT TO BAY 9

What does this specimen look like to you?

If you said “hairy”, you’re right! This is a bezoar, or a lump formed from lots of hair squashed together.

This came out of the stomach of a young girl who had a habit of pulling her hair out and eating it. The hair got stuck in the stomach, and eventually got so squashed together that it stayed in one big lump.

Compare the model of the stomach to the shape of the bezoar. Can you see how the hair was squashed into the same shape?



# OPPOSITE BAY 10

Have a look at the worm specimens. The specimen on the top shelf is a tapeworm - you can see more of these in the foyer where you entered the museum.

Tapeworms are usually between 4 and 12 metres long!

They can also lay eggs inside our bodies which grow in pockets of fluid called cysts. Have a look at specimen 1005 - can you see the cysts?

# BAY 12

Specimen 1359 shows a lung affected by lung cancer.

There is a black part and a white part. The black part is the normal lung tissue that has been turned black by the cigarette smoke that was breathed in.

The white part is the cancer. Can you see how it has grown throughout the lung? This stops the lung from doing its job properly.

# BAY 13

Have a look at specimen 1607 - what do you think it is?

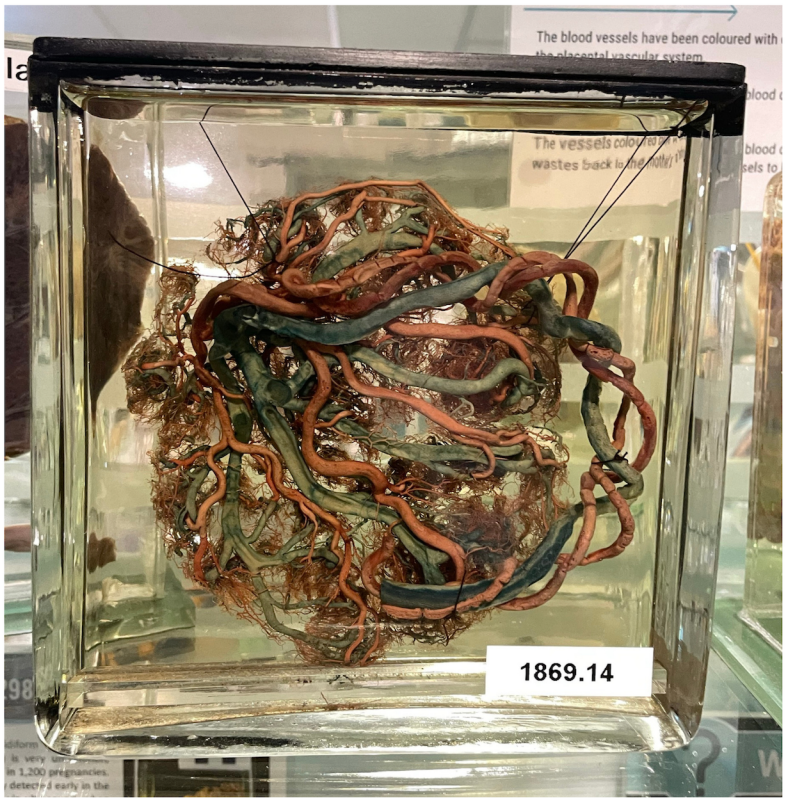
This is a cutaneous horn - cutaneous means that it grows from the skin. These are rare, and are most often found on the face, arms and hands.

The horn is mostly made up of keratin, the same substance that makes up our fingernails and hair, and the horns of animals.

# BAY 14

The placenta is an organ that forms when someone is pregnant. It connects the developing baby to the parent with blood vessels, and helps supply it with food and oxygen.

Specimen 336 shows the blood vessels from a placenta 28 weeks into a pregnancy. (A full-length pregnancy is around 40 weeks.) The blood vessels have been coloured so that you can see them more clearly.



# BAY 20

When we break a bone, the bone cells will grow and replace any damaged cells so that the bone heals.

If the bone is lined up properly, the bone will heal straight. However, if the bone is not lined up, we can end up with a malunited fracture, like in specimen 1329, where the bone heals crooked.

# BAY 20

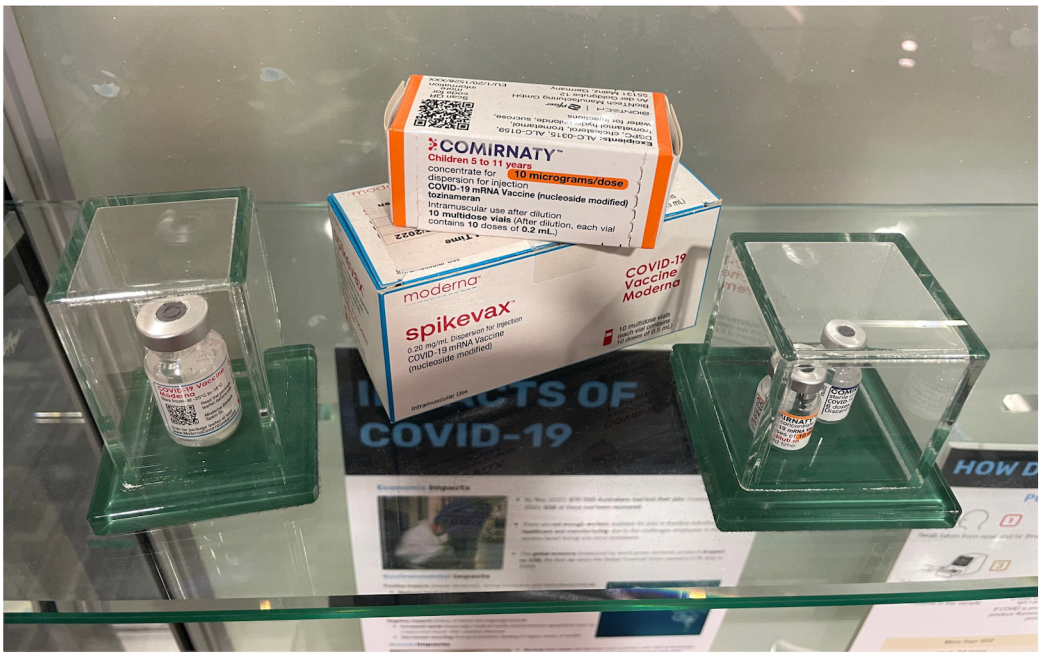
The most common operation that people have in Australia is having the appendix removed. The appendix is a small organ that is attached to the large intestine.

Sometimes, the appendix can become infected, a disease called appendicitis. Doctors often take out an infected appendix, because we can live a healthy life without it.

# BAY 23

This bay has samples of the COVID-19 vaccine. This vaccine was quite special - normally, it takes 10 years to develop a vaccine, and costs about $760 million.

Because COVID-19 was having such a huge impact on the world, a lot more money, people and resources were put in than usual. This meant that the vaccine was developed in one year, and cost over $3 billion.



# BAY 24

The bone in specimen 1237 stands out because of its unusual shape. This is a leg bone, which in most people would be straight.

However, people with achondroplasia are born with curved leg bones like this one. Their bones are also shorter than normal, and they have a shorter height than most people.

# BAY 25

This bay shows lots of devices used to keep people healthy.

This one is a VAD (ventricular assist device) which can be attached to the heart either inside or outside the body, and helps the heart pump blood to the rest of the body. It is used to help patients with weak hearts.

# BAY 25

X-rays are an important technology in medicine! They allow us to see the hard parts inside our body, such as our bones. This means we can see damage or disease without needing to do surgery to see what is wrong.

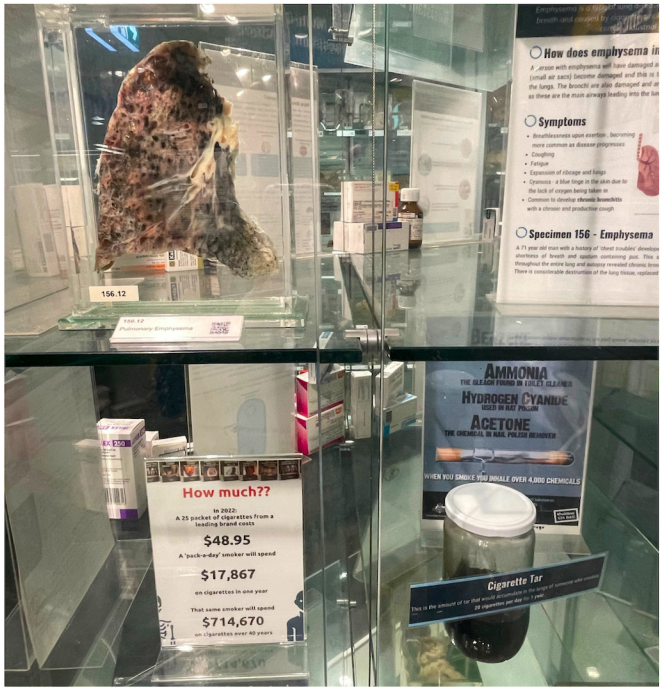
Have a look at the X-rays - you can change them out to see different things!

# BAY 27

In this bay you can find information about smoking and vaping, and how they affect our bodies.

Have a look at the jar on the middle shelf. Before you look at the label, have a guess - how many cigarettes does it take to make this much tar?

Then, have a look at the specimen on the shelf above. This lung has emphysema, a disease caused by smoking. Can you see how the black tar is spread through the lung and damaging it?



# THANK YOU FOR VISITING!