



## Sofia Jex-Blake



The edinburgh Seven

# Sofia Jex-Blake led a group of women known as the Edinburgh Seven

who fought to be able to study medicine at the UNiversity of Edinburgh at a time when only men were allowed to study medicine. The Edinburgh Seven faced a lot of difficulties including having rubbish thrown at them on their way to exams and ultimately having their degrees withdrawn after they graduated.

Sophia instead qualified at the London School for Medicine for women and returned to Edinburgh to become the first ever female practicing doctor in Scotland when she opened a

practice serving the poor women of the city. As well as practicing medicine she also open a training school for women where she taught a new generation of female doctors.

She is widely believed to be in a long-term relationship with Dr Margaret Todd and although Sophia pushed back against the social norms and expectations of the time they never openly discussed their relationship.

"It's a grand thing to enter the very first British university opened to women isn't it?"- Sophia Jex-Blake in a letter to Lucy Sewal



## Medicine and Doctors in the 19th Century



Smedley's Chillie paste was advertised as a cure-all for many ailments.

Ephemera Collection: QV: Advertising: 1850-1. Credit: Wellcome Collection. Attribution 4.0 International (CC PV 4.0)

You did need proper training to practice as a doctor when Sophia Jex-Blake was alive, but there was still a lot we did not understand about medicine and our bodies. Many diseases that we hardly hear about now in the UK killed a lot of people back then, such as

measles, mumps, tuberculosis. In Sofia's time, many of these were treated with 'miracle' medicines which were said to cure anything but usually contained poisonous or deadly ingredients like lead, opium or chloroform.



**EXHIBITION** 





However, it is also a time when surgery start to become much safer, mostly because doctors realised how important washing their hands was! Patients who were treated by doctors who washed their hands were much more likely to not get sick or die afterwards.

Doctors were also getting a better understanding of how our bodies work. Try the activity below to discover how our digestive system works!

### From chew to poo

This activity helps you to understand all the different parts of the digestive sytems and how they help us to digest food.

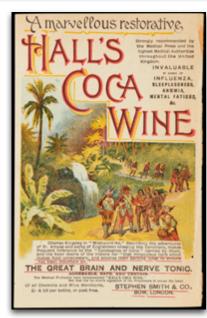
#### What you will need:

- Sandwich (bread and mashed banana works well)
- Knife
- Potato masher
- Big bowl
- Jug of water (to represent saliva)
- Yellow food colouring (to represent enzymes)
- Ziplock bag
- Spoon
- Vinegar (stomach acid)
- Washing up liquid (enzymes and gut bacteria)
- Long piece of clear tubing (sealed at one end?)
- Jug of water with brown food colouring
- Funnel
- Sieve
- Scissors

#### What to do:

#### Stage 1: The Mouth

- Teeth are the first step in digestion. Our incisors cut up our food so cut up the sandwich with the knife and place in the bowl.
- 2. Then our molars chew and grind up the sandwich; mash the sandwich with the potato masher.
- 3. The sandwich is too dry to digest, so we are going to add some saliva! Add water and mash a bit more.
- 4. Our saliva contains something called enzymes, which help break down your food and speed up the digestion process. Add a few drops of yellow food colouring to represent the enzymes and mash until there are no big lumps.

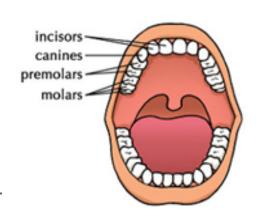


This advert is for Coca wine, a 'tonic' made of wine and cocaine, was to be taken to treat a range of ailments.

Tonic wines ephemera. Box 1..

Credit: Wellcome Collection.

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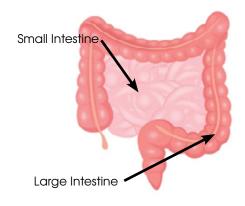
## dynamicearthonline.co.uk



Small Intestine

#### Stage 2: The Stomach

- 1. Now the food has moved down the throat and into our stomach. Move the mixture into a ziplock bag.
- 2. Our stomach is full of acid which helps to break down the food. Stomach acid is REALLY strong, but we will add some vinegar to our bag instead.
- 3. There are more enzymes in the stomach, and microorganisms, like bacteria, which make it possible to digest food. Bacteria break up the smallest parts of food so we will add some washing up liquid to represent them.
- 4. Once all this has been added the stomach will churn and mix it all together. Squeeze all of the air out of the bag before sealing it and start to churn the food in the bag by squishing it from the outside.
- 5. Once the food has been churned up in the stomach something called bile is added- add a small amount of brown food colouring to the stomach bag to represent this.



#### Stage 3: The small intestine

1. Once the stomach has done its job, food moves along to the small intestine. Use the funnel to tip the 'stomach contents' into the tubing.

**Oesophagus** 

Stomach

2. The small intestine is quite thin but very long, you can see it all wiggled up in the picture. In fact, in humans it is **seven meters long!** It is so long because all the nutrients from our food are absorbed through the walls of the small intestine where it is squeezed through. Squeeze the tube and send the food along to the other end.

#### Stage 4: The Large Intestine

- 1. At this stage all the nutrients have been absorbed by the small intestine and all that is left is water and waste products. Squeeze the food from the small intestine (tubing) into the sieve above the bowl.
- 2. It is the job of the large intestine to reabsorb all the water. Now use the spoon to squeeze as much of the water out as possible. You should end up with a substance which is firm and mouldable.

#### Stage 5: Poo

1. The waste exits the body as poo! Mould your food into a poo shape!