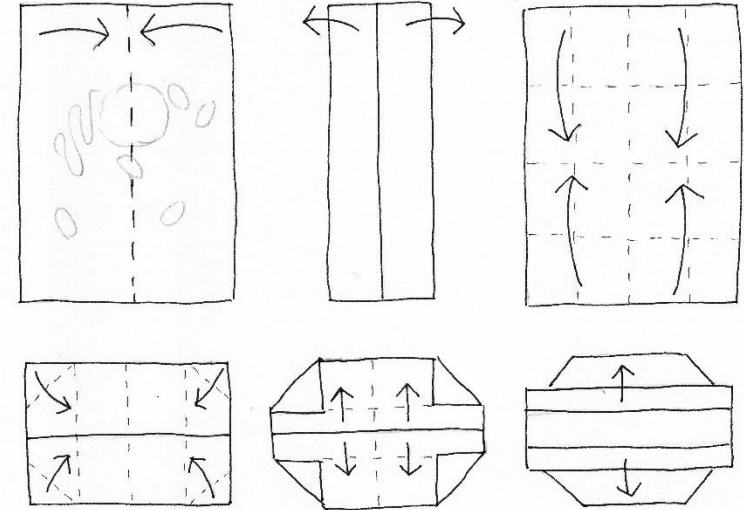


Cells – what can go wrong?

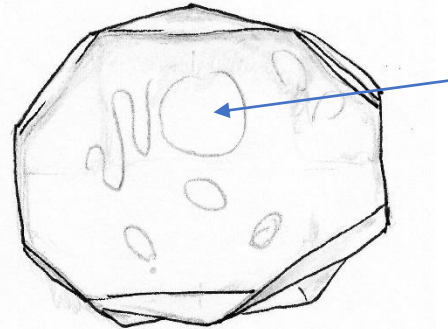
The basic unit of life is a cell. In unicellular organisms one cell can carry out all the functions of life. For eukaryotic multicellular organisms we start life as a single fertilised cell that divides, with cells becoming specialised into different tissues to form organs. For the body to work, cells need to specialise and behave in a social way and only divide a limited number of times.

With cancer, a cell gains mutations in its DNA which stops it being specialised and allows it to divide and grow without constraint. Once cells start to grow without dying they can form lumps, and organs can be disrupted if harmful malignant cells start to spread – this is called metastasis. Treatment for cancer can involve surgery to remove harmful cells, radiation to damage cells, or chemicals which kills dividing cells (also resulting in temporary loss of hair). New treatments are being developed using monoclonal antibodies that can target cancer cells. Antibodies in our body can mark cells or invaders for destruction. There are so many ways to manage and treat cancer. Diagnosing early gives the best chance for simple treatment.

Get creative – Quickly draw the insides of a eukaryotic cell on a piece of paper or get inspired with our colourful collection of [photos of cancer cells](#). Are the colours real? Fold your quick colourful drawing into an origami cell. Have a go at copying your drawing and then make as many cancer cells as you can, and as fast as you can. See the diagram to the right as to how to fold your paper.



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Nucleus – where DNA is found. In cancer cells this can become unstable with mutations. Mutations allow a cell to divide and grow out of control.

What can increase chances of developing cancer?

How can we lower our chances of developing cancer?



Films – [How to fold an origami cell](#) & [find out more from a pathologist...](#)