Interactions of systems

Every cell performs same basic activities.

Cells obtain nutrients to:

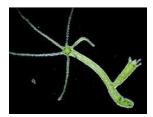
- $\rightarrow$  dispose of waste
- $\rightarrow$  get energy
- → move substances
- $\rightarrow$  divide
- $\rightarrow$  grow

Simple organisms simply need cells or tissues to do all their job.

Larger, more complex organisms (like you!) need organ systems.

• Often organ systems need to work together. We say they 'interact'.





A – The digestive system interacts with the circulatory. The blood vessels absorb the digested (smaller) bits of nutrition and deliver them around the body.

- B The circulatory system interacts with muscles and EVERY cell in the body to deliver these nutrient and also take away any waste products (including, but not only, CO<sub>2</sub>)
- C The circulatory system interacts with the urinary system to take urea (waste) from the blood, to bladder, at which point its released as urine.
- D The circulatory system interacts with the respiratory system to exchange  $CO_2$  and  $O_2$ .

