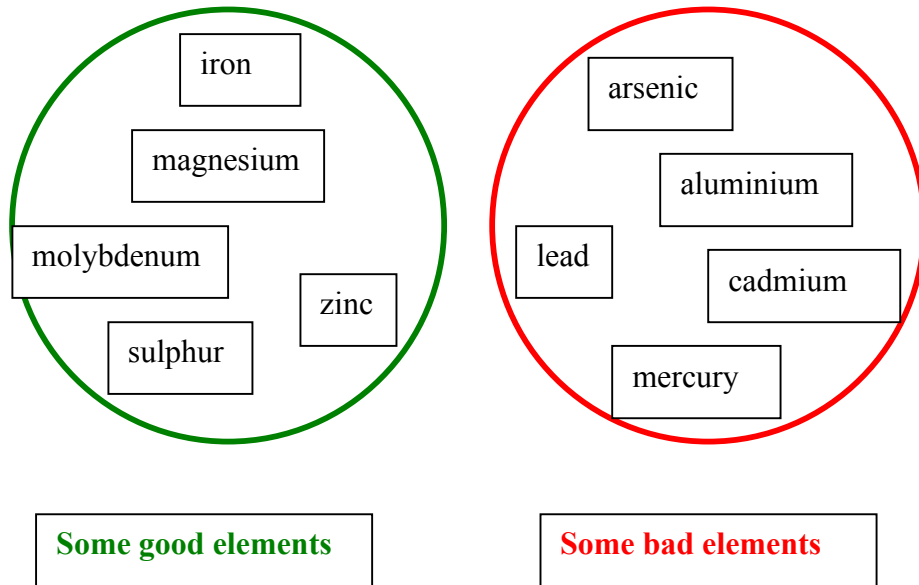


The Elements of Life and Death

We can't be healthy without a list of elements, and they help us tolerate our food

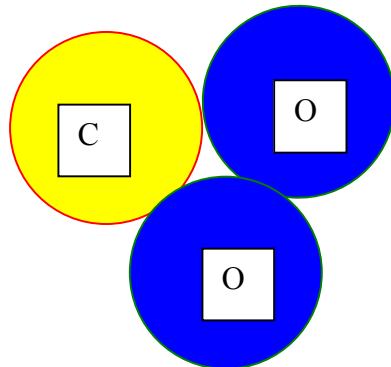
The universe is made out of a large number of elements, like **oxygen**, **copper**, **zinc**, **sulphur**, **aluminium**, **cadmium** and **mercury**. We evolved using some of them, although others are too nasty for us to use.



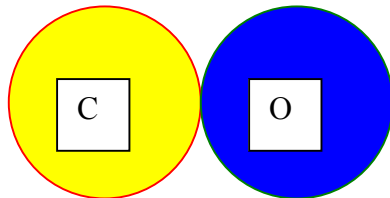
These elements join together to form compounds. Even if an element is essential, and we need some of these compounds, others can be deadly.

For example, all living beings need carbon. Our food contains carbohydrates and fats, both of them made of **carbon**, **hydrogen** and **oxygen**. Proteins contain these, as well as **nitrogen**. However, **carbon** compounds are not always safe.

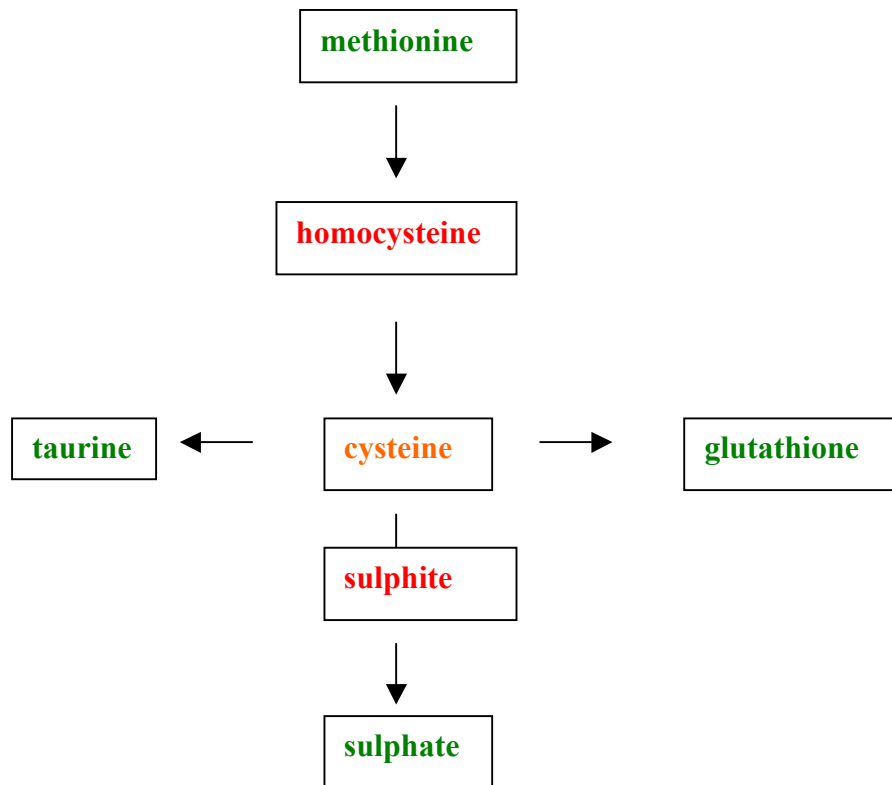
We make carbon dioxide, one carbon plus two oxygen atoms, and we breathe it out safely.



However carbon monoxide is a killer. It has one carbon plus only one oxygen atom. It used to be a hazard of living in rented rooms, until rules on testing gas appliances came in. Chronic carbon monoxide poisoning is serious too. It has been suggested that the reason why van Gogh's later paintings were gloomy, and Charles Dickens' later books were dark, is because they worked late using gas lights, and the carbon monoxide from them damaged their brains.



Our bodies carry out complicated processes. Often we make toxic chemicals, in order to make them into something we need. Sulphur is in methionine, a part of protein that we must have.



Green is good
Orange is both bad and good
Red is bad.

Methionine is essential for making the proteins we need. **Taurine** keeps the blood pressure down, and our hearts beating regularly. **Glutathione** deals with various toxins. **Sulphate** deals with poisons too, and stops the gut being too leaky. It is an antihistamine and antidepressant. However we can't make these good chemicals without first making **homocysteine**, which damages arteries and unborn babies, **cysteine**, which is toxic to the brain, but fights viruses, and **sulphite** which causes asthma. So **sulphur** is an element that is part of both good and bad compounds. The trick is to have efficient enzymes, so that, once a nasty chemical is made, we rapidly convert it on to the next stage. How good our enzymes are depends partly on our genes, but partly on nutrition. Some of us need to take supplements of vitamins B2, B5 and B6, fish oil, **molybdenum**, **magnesium** and **zinc**, while others seem to manage quite well without.

Compounds can be good in one place but not in another. For example, **sulphate** in the blood is vital, and if the level is too low, we are likely to have food intolerance, chemical sensitivity, migraine, irritable bowel syndrome, arthritis or fibromyalgia, chronic fatigue or depression. However, don't drink Epsom salts, as the **sulphate** in it will provide harmful bacteria in the gut with the oxygen they need.

So we can't survive without **carbon** and **sulphur**. What else do we need? Well, many British people are short of **magnesium**. It gives us energy, prevents dangerous blood clots, helps us sleep, prevents asthma, acts as a natural antihistamine, relieves cramps, keeps down blood pressure, relaxes us, and protects our bones.

Chromium helps us cope with eating carbohydrate, so that we don't have hypoglycaemia, feeling tetchy or dizzy before the next meal is due.

Lots of people have a reflux, allowing acid to come up from the stomach into the mouth. Taking drugs to reduce acid production is not a permanent solution. We need stomach acid to digest our food, and to protect us from infection. **Manganese** is often useful in strengthening the muscle, to prevent reflux. It is not, by the way, the same as **magnesium**. They are two separate elements.

Selenium helps us make the effective thyroid hormone, T3, and protects us from cancer and artery disease. However, too much is toxic. Eating a bag of brazilnuts a day, or washing hair in the bath with a selenium anti-dandruff shampoo, is asking for trouble.

A lot of elements, like **iodine**, **oxygen**, **calcium**, **sulphur** and **zinc**, are essential, and don't listen to anyone who says otherwise. What we don't want is the toxic elements, like **arsenic**, **mercury**, **lead** and **cadmium**.

Margaret Moss MA UCTD DipION CBiol MRSB MBANT
CNHC Registered Nutritional Therapist and Chartered Biologist
Nutrition and Allergy Clinic,
11 Mauldeth Close
Stockport
Cheshire SK4 3NP
0161 432 0964. www.nutritionandallergyclinic.co.uk.