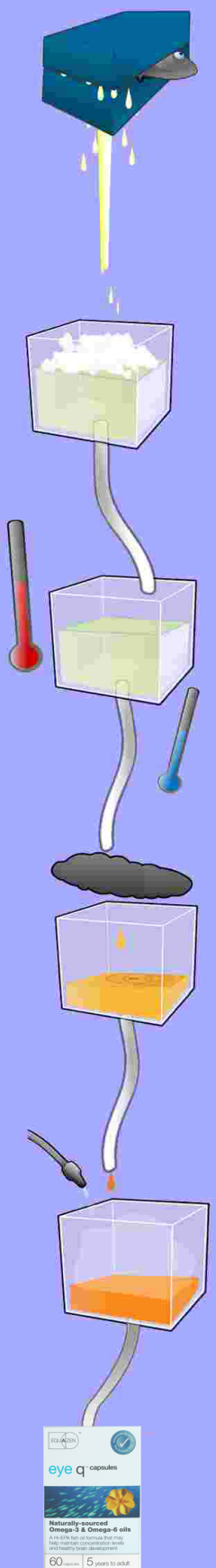
How we make our fish oils.



1 Harvesting

We're very choosy about the fish we use to provide our oil. For hi-EPA oil, we use sardines and pilchards harvested at certain times of the year when their EPA levels are really high, and for hi-DHA oil we use tuna. We only deal with suppliers who actually process the oil and who we know do not deal with agents or secondary parties.

2 Washing

This is the process to wash out free fatty acids and other water soluble proteins that we don't need. We add a soda compound that reacts with these elements, converting them into substances that are easily removed.

3 Freezing

This is a process called Winterisation to get rid of excess saturated fats, called stearins. We chill the oil to below zero, which causes the stearins to separate so they can be removed. Though we lose a lot of the volume of the oil, it is now cleaner and even more pure. We have also increased the absolute levels within the oil of the desired fatty acids, EPA and DHA.

4 Filtration

The next step is to remove proteins, and other volatiles that can make the oil smell bad. We mix the oil with a special clay made from volcanic ash. This is a natural source of calcium carbonate that absorbs any unwanted contaminants, such as heavy metals or toxins, so they can be washed out easily.

5 Steam-washing

To give our oil a final clean, we undertake a further step: deodorisation. The oil is put into a near vacuum and then blasted with steam at a pressure of about 20 atmospheres. This process washes out any remaining volatiles, including residual ash from the previous step. The oil barely tastes fishy any more.

The special care taken is what makes eye q unique as a natural source oil. No synthetic elements or chemicals have been added, and any enviornmental pollutants have been cleaned out. The process ensures that the structural integrity of the oil has been maintained: it is still oil as nature intended. For some of our products, we want a more concentrated form of fatty acids. Let's see how we do this, but keep the oil available in its most natural form...

Concentration 6

Researchers are seeing positive benefits from using omega-3s in many areas, and the best seem to come from keeping the oil available in its most natural form, that is, as a triglyceride. However this is an unwieldy molecule, which is difficult to concentrate. It also degrades easily, so to concentrate, we have to carry out a process of deconstruction and reconstruction.

Esterification 7

Here is where we deconstruct the fatty acid into a form that can be concentrated. We put the natural source oils into a chamber with ethanol alcohol. This dissociates the glycerol, and absorbs some ethanol to the free fatty acid stem. The result is an ethyl ester, a synthetic oil form that is now easy to concentrate.

Molecular Distillation 8

This is the vital stage of concentration. The ethyl esters enter a distilling vessel. Its walls have been heated to a specific temperature that will evaporate unwanted fatty acids. So a certain heat will be good for long chain EPA, and bad news for shorter chain varieties, which are removed as residue. The resulting distilled EPA or DHA is drawn towards a central cooling condenser.

Reconstruction 9

This is the stage that sets apart the Equazen pharmaceutical-grade concentrates. Equazen takes a further crucial step of reconstituting the synthetic ethyl esters back into natural form triglycerides. We do this by mixing the ethyl esters with natural glycerol, and at a certain temperature the elements combine.

Super-Refining 10

We are not finished yet! The oils now go through a final patented process called Super-Refining. We mix the fatty acids with special absorbent materials, which seek out any remaining volatiles or impurities, including any ethanol alcohol from the previous process. So we eliminate compounds that can give a bad taste or odour to the oil.
The result is super-refined, premium quality omega-3 oil, in a natural triglyceride form.