

Resins

Bile acid binding resins, also known as bile acid sequestrants or simply as 'resins', are one of the groups of medicines used to lower cholesterol. They have been in existence for over thirty years and are unique in that they are not absorbed into the body.

When are resins used?

Resins are recommended when only cholesterol is elevated. Resins tend to raise triglyceride levels, so are not recommended for people who already have high triglyceride.

Resins are effective in lowering LDL cholesterol (low density lipoprotein - the 'bad' kind of cholesterol), and may slightly raise HDL cholesterol (high density lipoprotein - the 'good' kind). They can be used in combination with other drugs, such as statins. This has proven to be a safe and effective method of reducing cholesterol levels.

How do they work?

One of the many functions of the liver is to make bile acids. It makes them from cholesterol and they are stored in the gall bladder. After a meal, bile acids are released into the upper part of the gut where they help absorb fat in the food just eaten. Almost all of these bile acids are reabsorbed from the intestine and re-used by the liver.

Resins exert their effect in the intestine. The bile acids bind to the resin in the gut, so they cannot be reabsorbed and are subsequently lost in the faeces. The liver compensates by making new bile acids. It does this by creating new receptors that draw cholesterol from the bloodstream into the liver for the manufacturing process. The resultant effect is a reduction in blood cholesterol levels.

Types of resins available

The two main brands of bile acid binding resins on the market are cholestyramine (Questran) and colestipol (Colestid). Those who have been prescribed a resin may wish to try both types to determine if one is preferable. Resins usually come in powdered form in sachets and must be shaken vigorously with liquid in order to dissolve. Resins have a slightly unusual taste and texture; some people prefer ones with orange flavouring and others use recipes that incorporate the product.

Considerations when taking a resin

Resins have a well-established safety record. Side effects, however, may be experienced. These include tummy upsets - flatulence, discomfort and in some cases diarrhoea or constipation.

Another consideration is that a relatively large quantity must be taken to achieve the desired effect.

For these reasons, some people find that they just cannot manage to take resins regularly. It is important that people let their doctor know this - if not taken regularly, resins will obviously not be of any benefit, so a different medicine would be needed!

It should also be noted that they might interfere with absorption of other medications. It is recommended that other drugs be taken at least one hour before or four to six hours after a resin. People who are also given the drug warfarin need special advice from their doctor or pharmacist.

Suitability for use in children

Resins are considered safe for use in younger people, in particular for children who have the inherited disorder familial hypercholesterolaemia.

As resins can interfere with absorption of certain vitamins, supplemental folic acid is recommended. This should be taken at least one hour before or four hours after the resin.