Drinking fruit and vegetable juices frequently may significantly cut the risk of developing Alzheimer's disease, a study suggests.

US researchers followed almost 2,000 people for up to 10 years - providing a powerful set of results.

They found the risk was 76% lower for those who drank juice more than three times a week, compared with those who drank it less than once a week.

The study appears in the American Journal of Medicine.

Alzheimer's is linked to the accumulation of clumps of beta-amyloid protein in the brain.

Various studies have suggested that polyphenols - chemicals available in many foods - might disrupt these processes and provide some protection against Alzheimer's disease by neutralising the effect of damaging compounds called free radicals.

Fruit and vegetable juices are particularly rich in polyphenols.

Lead researcher Dr Qi Dai, of Vanderbilt University, said: "We found that frequent drinking of fruit and vegetable juices was associated with a substantially decreased risk of Alzheimer's disease.

"These findings are new and suggest that fruit and vegetable juices may play an important role in delaying the onset of Alzheimer's disease."

The research was carried out on Japanese Americans, but researchers said the findings were applicable to the general population.

Cheap treatment
Harriet Millward, of the Alzheimer's Research Trust, said: "Many scientists believe there is a link between the release of free radicals within the body and early changes to brain cells in people who ultimately go on to develop Alzheimer's disease.

"Since fruit and vegetable juices are rich in antioxidants which 'mop up' free radicals, this interesting piece of research adds weight to this theory."

Dr Millward said previous studies had produced mixed results, and some had suggested the benefits of fruit and vegetables were short lived.

But she said the results of the latest study were significant because it was long-term, and had followed a relatively large group of people.

"Diet almost certainly plays a part in every person's Alzheimer's risk - and diet is a magnet for research because it could offer a relatively inexpensive way to fight a disease that ruins countless lives and costs the NHS more than cancer, stroke and heart disease put together."

Clive Ballard, director of research at the Alzheimer's Society, said fruit and vegetables might also help cut the risk by helping to lower blood pressure, and keep the blood vessels in good order.

Alzheimer's has been linked to poor blood supply to the brain.