

SUNDAY, OCTOBER 31, 2004

How to Bugger Up Mice

Sunday.

Seems like it isn't the loss of teeth that causes the memory loss problems, it's the related inability to chew that's responsible.

As far back as March 2000, the BBC's Health Page alerted the World to a [New Scientist](#) magazine report that Japanese researchers led by Dr Minoru Onozuka, of Gifu University School of Medicine, had tested this theory about chewing and memory on laboratory mice, genetically altered to age prematurely.

The mice exhibited signs of ageing, such as cataracts, hair loss and failing memory.

The mice then had their molar teeth extracted so that they could eat but not chew. The "scientists" tested the mice's memories by recording how long they took to locate a hidden platform in a water maze. They found that young mice swiftly learned to locate the platform, regardless of whether they had molars or not. Older mice with a full set of teeth were only slightly slower.

However, old mice whose molars had been removed were unable to remember how to find the platform, and consistently headed off in the wrong direction.

Which goes to prove that genetically modifying mice to make them age prematurely and removing their molars to stop them chewing food, hidden in a water maze... buggers them up... completely.