

## 43 percent reduction in deaths from paracetamol due to smaller pack sizes

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The number of deaths and liver transplants due to paracetamol overdoses has significantly reduced thanks to UK legislation to make pack sizes smaller, a paper published today in *BMJ* suggests.

Paracetamol [overdoses](#) are a common method of suicide and frequent cause of [liver damage](#). In September 1998, a [new legislation](#) was introduced by the UK Government which restricted pack sizes to a maximum of 32 tablets through pharmacy-sales and 16 for non-pharmacy sales.

A research group from several English universities found benefit during the first few years, but some researchers have questioned the impact of this legislation.

In this study, the researchers aimed to investigate the long-term impact that the legislation may have had in England and Wales on poisoning deaths (especially [suicides](#)) and on the amount of patients admitted to hospital for [liver failure](#).

Data on poisoning deaths were examined between 1993 and 2009 and liver unit registrations between 1995 and 2009. Data were taken from the Office of National Statistics for individuals aged 10 years and over (paracetamol poisoning in children younger than 10 years is usually accidental). Data for all [liver transplants](#) were supplied by UK Transplant (now NHS Blood and Transplant).

Researchers found a significant decrease in deaths in England and Wales involving paracetamol. The estimated average decrease in the number of deaths was 17 per quarter compared with the expected number based on what was happening during the pre-intervention period. This resulted in an overall decrease of 43% in the 11 years post-legislation period.

The number of registrations at UK liver units for paracetamol-induced [liver transplantation](#) in England and Wales following the legislation was 482 fewer than expected: a 61% reduction.

However, in spite of the apparent benefits, there continues to be a considerable number of deaths each year due to paracetamol poisoning at an average of 121 per year. The researchers say that benefits should not lead to complacency. They suggest further measures may be required to limit this death toll including stronger enforcement of the legislation, further reduction in pack sizes and possibly a reduction in paracetamol content of tablets.

However they say that evidence would be needed to show that this had no major effect on efficacy of pain relief.

**More information:** Long term effect of reduced pack sizes of paracetamol on poisoning deaths and liver transplant activity in England and Wales: interrupted time series analysis, *BMJ*, 2013.

Provided by British Medical Journal

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