

Long-term studies*Rat*

Weanling rats given sorbitol at levels of 10% or 15% in the diet for 17 months and observed over four successive generations showed no evidence of deleterious effects on weight gain, reproduction, lactation, or histopathological appearances of the main organs.²⁷

Man

Sorbitol has been used for many years in the diet, especially of diabetics. There have been no indications of significant harmful effects.

Comment on experimental studies reported

Sorbitol has been in extensive use in dietetics and in parenteral nutrition in human subjects and is readily metabolized by normal carbohydrate pathways.

Evaluation

The many studies that have been carried out in man provide a good basis for the estimation of acceptable daily intakes.

Estimate of acceptable daily intakes for man

	mg/kg body weight
Unconditional acceptance (as a food additive)	0-150
Conditional acceptance (as a food additive or as a food)	Not limited

References

1. Adcock, L. H. & Gray, C. H. (1957) *Biochem. J.*, **65**, 554
2. Stetten, M. R. & Stetten, D., jr. (1951) *J. biol. Chem.*, **193**, 157
3. Todd, W. R., Myers, J. & West, E. S. (1939) *J. biol. Chem.*, **126**, 275
4. Blakley, R. L. (1951) *Biochem. J.*, **49**, 257; Blakley, R. L. (1952) *Biochem. J.*, **52**, 269
5. Todd, C. M. (1954) *Aust. J. exp. Biol. med. Sci.*, **32**, 827
6. Embden, G. & Griesbach, W. E. (1914) *Z. physiol. Chem.*, **91**, 281
7. McCorkindale, J. & Edson, N. L. (1954) *Biochem. J.*, **57**, 518
8. Hers, H. G. (1955) *J. biol. Chem.*, **214**, 373
9. Seeberg, V. P., McQuarrie, E. B. & Secor, C. C. (1955) *Proc. Soc. exp. Biol. (N.Y.)*, **89**, 303
10. Wick, A. N., Morita, T. N. & Barnet, H. N. (1955) *Food Res.*, **20**, 66
11. Wick, A. N. & Drury, D. R. (1951) *Amer. J. Physiol.*, **166**, 421