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[Altern Lab Anim.](#) Mar-Apr 2002;30(2):219-27. doi: 10.1177/026119290203000208.

# The use of fetal bovine serum: ethical or scientific problem?

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## Abstract

Fetal bovine serum (FBS) is a common component of animal cell culture media. It is harvested from bovine fetuses taken from pregnant cows during slaughter. FBS is commonly harvested by means of a cardiac puncture without any form of anaesthesia. Fetuses are probably exposed to pain and/or discomfort, so the current practice of fetal blood harvesting is inhumane. Apart from moral concerns, several scientific and technical problems exist with regard to the use of FBS in cell culture. Efforts should be made to reduce the use of FBS or, preferably, to replace it with synthetic alternatives.

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