

# **Anthropometric measurement of newborns of gestational diabetic mothers: does it indicate disproportionate fetal growth?**

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## **Abstract**

Anthropometric and skinfold measurements in 51 newborns of mothers with gestational diabetes were compared to reference ranges obtained from measurements of 501 newborns of nondiabetic mothers. In newborns of diabetic mothers, the means of fetal birth weight, biceps, subscapular, suprailiac skinfolds, and total fat index measurements (the sum of all measurements) were significantly greater than those of the nondiabetic group. While the means of fetal crown-heel length and head circumference did not significantly differ between the two groups, these findings suggest a disproportionate pattern of growth in fetuses of diabetic mothers, with increased tendency for deposition of subcutaneous fat. The studied population were then stratified into six categories according to birth weight percentiles. Within each category, the skinfold measurements in newborns of diabetic mothers were greater--though the difference was not statistically significant than that of nondiabetic mothers. It is possible, however, that in severe cases of maternal diabetes, the risks of complications, such as shoulder dystocia, increase with disproportionate deposition of subcutaneous fat. These risks appear greater than in fetuses of nondiabetic mothers at a comparable birthweight.