

TESTICULAR CANCER
LOW GESTATIONAL
AGE INCREASES RISK

Testicular cancer, the most common malignancy affecting young adult men, is thought in most cases to originate from carcinoma *in situ* cells arising during fetal life. Although the precise mechanism is not well understood—cryptorchidism is one of few established risk factors, thought to be involved in 10% of cases—it is thought that hormone imbalances, genetic factors and other uterine environmental modulators are involved. The alterations in prenatal and postnatal sex hormone levels in offspring born preterm has led to the suggestion that low gestational age might be a risk factor for testicular cancer. Previous studies investigating this association have yielded discrepant results, and did not take into account the possible effects of extreme preterm birth. In their recently published study, Crump *et al.* suggest that men born very prematurely might have an increased risk of developing testicular cancer.

The study cohort included 354,860 men born in Sweden between 1973 and 1979. 19,214 were born preterm (gestational age <37 weeks), of whom 1,279 were born extremely preterm (gestational age 22–29 weeks). Testicular germ cell tumors occurred in a total of 767 men (296 seminomas and 471 nonseminomas). After adjusting for demographic and perinatal factors, family history and presence of cryptorchidism, extreme preterm birth was associated with a significantly increased risk of testicular cancer (hazard ratio 3.95; 95% CI 1.67–9.34). Later preterm birth (gestational age 30–36 weeks) was not associated with an increased testicular cancer risk. Low or high fetal growth also showed no association with cancer risk.

It should be noted that the statistically significant increased risk of testicular cancer associated with extreme preterm birth was calculated on the basis of only 5 cases occurring in the 1,279 men in this group. Accordingly, the accuracy of this finding will require confirmation in future studies. Nevertheless, further clarification of the prenatal factors that affect the risk of testicular cancer in later life might facilitate the development of preventative interventions during early life that could diminish the chances of developing this malignancy.

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Original article Crump, C. *et al.* Gestational age at birth and risk of testicular cancer. *Int. J. Cancer* doi:10.1002/ijc.26373