

**BACCALAURÉATS GÉNÉRAL ET TECHNOLOGIQUE**  
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**THEME 1 – A1:GENETICS**  
**Série S/ES/L**

**Pregnancy blood test can identify Down's syndrome**

Testing whether a foetus has Down's syndrome is getting easier - and less risky. Several companies are launching tests that work on a pregnant woman's blood. The tests are already proving controversial, with opponents of abortion concerned that more women will decide to terminate their pregnancy.

5 Brian Skotko, a Down's syndrome researcher at Boston Children's Hospital, says this isn't an unreasonable concern. The new tests will see prenatal diagnoses increase a lot he says. "Unless the healthcare community ensures that these women receive accurate information about Down's syndrome, I think that a reasonable prediction is that fewer babies with the syndrome will be born.

10 "Down's syndrome, caused by an extra copy of chromosome 21, is generally detected by amniocentesis, which involves inserting a needle into a pregnant woman's belly<sup>1</sup> to sample cells from the fluid bathing her foetus. It carries a 1 per cent risk of miscarriage<sup>2</sup> and is usually performed between 15 and 20 weeks into pregnancy - which in some US states is right up against the legal time limit for abortion.

15 The new tests instead detect DNA from foetal cells that have broken down. Some of this DNA crosses the placenta and gets into the mother's bloodstream, and the tests look for an excess of material from foetal chromosome 21.

20 Not only do the blood tests eliminate the risk of miscarriage, they are also claimed to have lower error rates than conventional tests. The new tests can be run from about 10 weeks into pregnancy. In some US states, the extra time this will allow may be crucial as women decide whether to carry a foetus to term.

Will the extra time lead to a surge in abortions? That fear "gives women too little credit", argues some scientist. They suggests that if women have more time to gather information on raising disabled children they might be more likely to keep the pregnancy.

Adapted from the article written by Sara Reardon, *New scientist*, June 2011.

**Sum up this article and explain the main ideas using your scientific knowledge.**

<sup>1</sup>Belly: abdomen.

<sup>2</sup>Miscarriage: premature expulsion of the foetus from the uterus.