

**All Pregnancy Tests are based on the detection of human Chorionic Gonadotrophin (hCG). The presence or absence of this hormone in a sample, leading to an analytically true positive or negative test result, does not guarantee a true clinical picture.**

## **False Positive Pregnancy Test Result (i.e hCG is present in the sample without a viable pregnancy)**

### **Early Miscarriage**

Research has shown that up to half of all conceptions end in miscarriage. Due to the high sensitivity of pregnancy tests (25iu and 10iu) fertilisation will cause a detectable hCG without implantation.

### **Post Pregnancy**

The test will remain positive for some time after miscarriage, abortion and delivery, therefore the test cannot be used for detection or confirmation of miscarriage or successful termination, and care should be taken when using it to confirm an early subsequent pregnancy.

### **Other sources of hCG**

Drugs that contain Human Chorionic Gonadotropin (hCG) eg infertility treatments. Some tumours eg Hydatidiform moles ("molar pregnancy") may produce high levels of  $\beta$ hCG, despite the absence of an embryo. The  $\beta$  subunit of human chorionic gonadotropin is secreted also by some cancers including choriocarcinoma, germ cell tumours, teratoma with elements of choriocarcinoma (this is rare), and islet cell tumour. For this reason a positive result in males can be a test for cancer.

Some females can have a very low level background hCG (confirmed by serum levels). This can lead to a weak positive result with ultra sensitive tests (10 IU)

## **False negative pregnancy test result (i.e no detectable hCG is present in the sample during pregnancy)**

### **Dilute urine**

Early morning urine is best. If pregnancy is suspected and the test is negative the urine test must either be repeated with an EMU or a serum hCG performed. **If an ectopic pregnancy is suspected, use of a serum hCG test is strongly recommended.**

### **Early Detection Attempt**

Testing too early. Pregnancy tests vary in their sensitivity (which means how soon they can detect the hormone Human Chorionic Gonadotropin (hCG) in urine) it's important that you know the limitations of the test you are using. It is possible that although the ovum is fertilised the body has not started secreting enough Human Chorionic Gonadotropin (hCG) for the test to measure.

### **Poor Technique**

The dip stick must **not** be immersed completely in the urine but must be dipped up to the line for 10-15 seconds to allow sufficient urine to travel up the stick. The correct number of drops should be applied to cassettes.

For accuracy it is essential that the test is read in the stipulated reaction time, too early and a faint line might be missed, if left too long the strip may dry and lines from the manufacturing process may become visible.