



## HOME PREGNANCY TESTS

Many women use home pregnancy tests if they suspect they are pregnant. Regulated by the Food and Drug Administration, pregnancy tests have come a long way since the early to mid-1900s when toads, rats, and rabbits were used in testing. Now, over-the-counter home pregnancy kits provide privacy and fast results, and can detect pregnancy as early as 6 days after conception, and almost always by the 1st day after a missed menstrual period. This gives an early advantage for vital prenatal care.

All pregnancy tests are based on the presence of a hormone, human chorionic gonadotropin (hCG), which the pregnant woman produces after conception. The first self-tests of the 1970s used ring, or "tube agglutination," tests consisting of prepackaged red blood cells to detect HCG in urine. A ring at the bottom of the tube indicated a positive result. Sensitive to movement and human error, ring tests are now rarely used.

Today's pregnancy tests contain monoclonal antibodies that detect minute traces of hCG. These antibodies are molecules coated with a substance that bonds to the pregnancy hormone, if it's present, to produce either a positive or negative result. (Each test manufacturer uses a different "trade secret" chemical formula for the bonding substance.) The user collects urine and combines it with the antibodies provided in the package. The test is timed, and a color change indicates the result.

Although most manufacturers claim 99% accuracy in laboratory tests, inaccurate results may be more frequent in actual use, due to such factors as improper use of the test, using a product past its expiration date, exposure of the test to the sun, and cancers. The procedures outlined in the instructions must be followed exactly for results to be accurate.

One-step brands give results in 3 minutes and inform the user when the test hasn't been done properly. This new testing method, called rapid assay delivery system, combines a biochemical process with monoclonal antibodies in one pen-like instrument.

Whatever the result or the brand used, most manufacturers recommend repeating the process a few days later to confirm the results. After conception, a woman produces a minimal amount of hCG. The strength of each test varies, and although a woman may be pregnant, the test may not pick up the amount of hCG hormone present the first time.

If you do a home pregnancy test, follow the directions carefully. If your test is negative and you think you are pregnant, repeat the test in about a week.

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