

## Preimplantation Genetic Diagnosis (PGD)

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Preimplantation genetic diagnosis (PGD) is a genetic-testing tool that allows for the detection of abnormalities in 3-day-old embryos via DNA probes. Such abnormalities are a principal cause of unsuccessful In Vitro Fertilization (IVF) attempts. The procedure is so new that fewer than 300 babies have been born through PGD in the United States to date.

PGD enables Reproductive Endocrinologists to assess the chromosomal makeup of an embryo before implantation in the womb. The procedure is targeted to older women, women who have had two or more unsuccessful IVF attempts, women with recurrent pregnancy loss, and couples where the husband has severe male factor fertility issues.

Studies indicate that 50 percent of the embryos of women suffering from recurrent pregnancy loss have genetic abnormalities. Coastal Fertility Medical Center will use PGD specifically as a genetic-testing tool for revealing these abnormalities related to unsuccessful outcome.

PGD also offers widespread potential for detecting genetic defects and identifying such fatal diseases as Sickle Cell Anemia, or Hemophilia. For parents with genetic predisposition to chromosomal disease, it offers a greater likelihood for the possibility of delivering healthy babies. Up to this point, [Chorionic Villus Sampling](#) and [Amniocentesis](#) have been used to document chromosomal abnormalities, but those events occur after the pregnancy has been achieved.

Down the road, PGD has the far-reaching capability of becoming a critical link between fertility and other areas of genetic research. Research has already begun using embryonic cells to replace damaged adult cells found in individuals with previously irreversible medical conditions such as Parkinson's disease.

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