

### **The importance of family history risk assessment for ovum donors**

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Ovum donors are usually screened about their family history through the use of a questionnaire, usually focusing on first degree relatives and grandparents. Most gamete donor programs do not utilize genetic counseling services for family history risk assessment and do not obtain a three generation pedigree. The purpose of this study was to determine the number and type of risk factors identified in ovum donors in a large fertility clinic. Genetic counseling was provided for all ovum donors (n=111) from January, 2003 until May 2004. Three generation pedigrees were constructed, and risk assessment and appropriate testing was offered. Chart review was performed to categorize the risk factors. Of the 111 donors, 26 (23%) had an increased risk. Specifically, 3 individuals were carriers for cystic fibrosis, 8 had a family history of mental retardation, Down syndrome, or ADHD. Type I diabetes in a first degree relative was present in 2, family history of early heart attack or stroke in 5. An increased risk for mental illness was seen in 3. An increased risk for cancer was identified in 8. Previous child with a limb reduction defect (amniotic band) was seen in 1, and 3 had a family history of a mendelian disorder (hearing loss and colorblindness). Family history risk assessment for ovum donors using a three generation pedigree provides enhanced information to the ovum donor program to allow them to better screen their donors. It allows recipient couples make informed decisions about potential genetic risks prior to donor selection and pregnancy and allows them to take advantage of technology such as PGD. Ideally, genetic counseling would be provided to obtain ovum donor family history, follow up on donors who screen positive for genetic tests, and provide information to recipients who have questions about the genetic history of their ovum donors.