Frozen embryo transfer versus fresh embryo transfer: What's riskier?
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“Neonatal outcomes following fresh as compared to frozen/thawed embryo transfer in in vitro fertilization (DOI: 10.1002/bdr2.1216),” research co-authored by Kristin Van Heertum, MD, and Rachel Weinerman, MD, both practicing physicians who routinely deal with IVF issues at University Hospitals Cleveland Medical Center. Dr. Weinerman is also a guest editor of the issue and concludes that "as technologies advance and improve, there are more and more indications for frozen embryo transfer in clinical use" and that embryo freezing may even play a role in preventing negative outcomes by allowing time for the uterine environment to normalize.

Another review (DOI: 10.1002/bdr2.1219) included in the special issue examines frozen embryo transfer and the risk for large for gestational age babies. The research provides potential mechanisms for this association. "It has been noted that implantation of frozen embryos results in larger babies," explained Michiko Watanabe, PhD, co-editor of the special Birth Defects Research issue and professor of pediatrics at Case Western Reserve University School of Medicine. "But whether having a larger baby has negative long-term consequences has not yet been determined."

Congenital heart defects (CHD) have also been associated with IVF. However, a review (DOI: 10.1002/bdr2.1228) by Avinash Patil, MD, at the Center for Personalized Obstetric Medicine in Phoenix, AZ, shows that only milder CHD may be associated with assisted reproductive technologies. "This information is good news when counseling a potential IVF patient since severe congenital heart defects risk does not seem to be higher with assisted reproductive technology," said Dr. Watanabe.

Other topics covered in the issue include the expertise of Marcos Meseguer, MD, one of the pioneers in the field of time-lapse microscopy of early embryos to assess quality (DOI: 10.1002/bdr2.1227).
Time lapse microscopy and other testing might allow selection of the one best embryo for implantation, thus avoiding twinning and other multiple births that increase risks for mothers and fetuses.


Kristin Van Heertum et al, Neonatal outcomes following fresh as compared to frozen/thawed embryo transfer in in vitro fertilization, Birth Defects Research (2018). DOI: 10.1002/bdr2.1216

Sine Berntsen et al. Large for gestational age and macrosomia in singletons born after frozen/thawed embryo transfer (FET) in assisted reproductive technology (ART), Birth Defects Research (2018). DOI: 10.1002/bdr2.1219


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