

NEWSLETTER

This newsletter centers on reproductive topics with a genetics focus. If there is an organization or upcoming webinar you'd like me to include in a future newsletter, please feel free to reach out at genetics@modernreproduction.org.

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Webinars

**PET PODCAST: WHEN
TO STOP STORAGE –
IMPROVING
CONVERSATIONS
ABOUT UNUSED
EMBRYOS**

Listen Here

**The New World of
Pangenomes and
Long-Read
Technologies**

View Here

NEWSLETTER

The little lit review

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Diet and recreational drug use in relation to male reproductive health 

Sarah LaPointe, Ph.D., Akanksha Mehta, M.D., and Audrey J. Gaskins, Sc.D.

Hot take? Maybe not that hot, but it seems our biology has “recognized” the environment is not conducive for offspring, thus has reduced the ability to create offspring. I've heard some policies have been requested to limit the exposures in our food/water sources, yet I haven't heard complete abolition of toxic substances or even the awareness in the general community. I hear more often the idea that if spontaneous conception is not occurring then IVF will be the solution as opposed to lifestyle changes. It may be that there is not a way to eliminate these things completely, but it seems to be an important piece to the fertility puzzle. Are fertility specialists requiring lifestyle changes before providing IVF services or are these changes just recommended and up to the patient to make them. Should there be gatekeeping or without policies, it is unfair to put the burden on the individual as opposed to on the society/government?

The authors culminated studies which investigated dietary changes in men in relatively short time periods (<1yr) as well as their drug use including illicit drugs, marijuana, and alcohol. Sperm parameters improved with better diet but it is unclear if the improvement would translate into practical metrics of time to pregnancy and success of fertility treatments. Studies can have conflicting findings, possibly due to the numerous variables not controlled for in human studies.

Do: Eat fruits, vegetables, whole grains, nuts, low-fat dairy, and seafood

Don't:

Eat red and processed meats, sweets, and sugar sweetened beverages

Protein source matters because of the potential to contain environmental contaminants (such as hormone residuals and antibiotics, organochlorines, dioxins, and mercury) and because of their essential fatty acid content (such as saturated and omega-3 fatty acids).

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The little lit review



Decision-making process about prenatal genetic screening: how deeply do moms-to-be want to know from Non-Invasive Prenatal Testing? 

Serena Oliveri, Giulia Ongaro, Ilaria Cutica, Giulia Menicucci, Debora Belperio, Francesca Spinella, Gabriella Pravettoni

The authors investigated the prediction that higher levels of anxiety, need for information regarding health of the pregnancy, and aversion to uncertainty would indicate a desire for more conditions to be assessed via NIPT as well as how the COVID pandemic impacted this desire.

WHO:

Eligible: 18 + pregnancy individual who had NIPT between 11/2019- 5/2020

Participants: 191 individuals from 25-55 years of age

NIPT OPTIONS:

1. Common fetal aneuploidies (21, 18, 13, 9, 16), sex chromosomal aneuploidies, and 6 microdeletion syndromes
2. Assesses deletions/duplication >7Mb and aneuploidies across all chromosomes.
3. Assesses deletions/duplication >7Mb and aneuploidies across all chromosomes as well as single gene disorders
 - a. CF, deafness autosomal recessive type 1A, deafness autosomal recessive type 1B, Beta thalassemia, sickle cell anemia, and de novo genetic conditions (cardiac defects, congenital anomalies, intellectual disabilities)

WHAT: survey given between 3/2021-8/2021

FINDINGS:

- COVID did not impact participants' decision to have more information about genetic conditions
- Most of the participants were aware of NIPT prior to having the evaluation
- Social norms seemed to play a role in decision making of which option to pursue as well as the involvement of the participants' gynecologist
- Those who chose larger panels thought the other panels were not comprehensive enough and were more likely to think there was a greater risk to their pregnancy.
- From this study, it did not find that previous abortion experience, primiparity, or advanced maternal age impacted choice, yet other studies have found primiparous versus multiparous has an impact to decision making.

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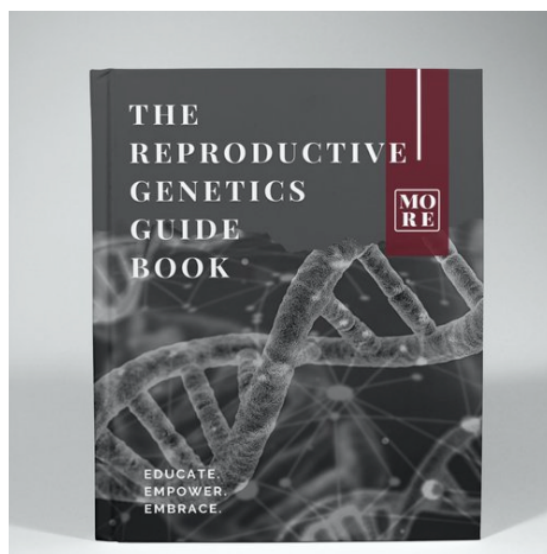
Community Content:



A difficult subject for many is the grieving process. In reproduction, pregnancy loss needs to be appropriately grieved for - there's often the discussion of when to conceive next. Physical healing is as important as emotional healing. These organizations help walk people through times of loss whether that be a pregnancy or child. - click on the picture for the link.

Modern Reproduction Content:

The Guidebook was born from personal need and a need for those in the reproductive space. It allows for the ability to quickly look up what to do for particular results or conditions.



SALE

The Reproductive Genetics
Guidebook