

WHAT TO EXPECT BEFORE EXPECTING



DAD EDITION

The Perspectives of Prospective Fathers About Preconception Epigenetics

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INTRODUCTION

Research on preconception health has focused primarily on mothers, thus relatively few studies have explored the effects of the father's preconception health on his children. Emerging data from epidemiological studies indicate paternal epigenetic contributions in sperm may have lasting effects on offspring development and health^[1]. This project creates a shift in the discourse surrounding preconception health and epigenetics to include male perspectives by investigating how prospective fathers connect their own experiences and lifestyle to the health outcome of their future children.

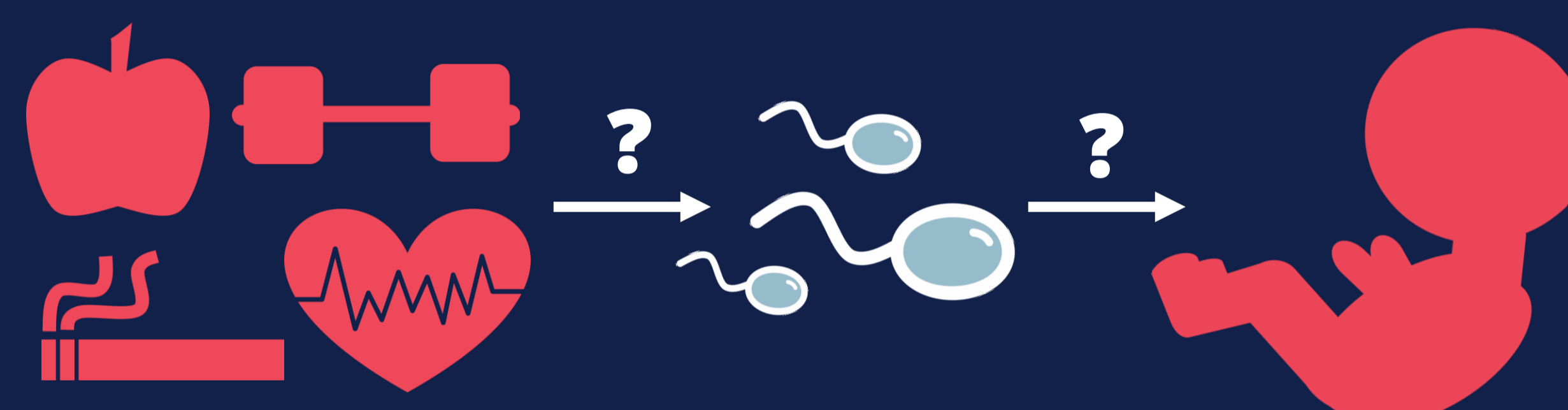
EPIGENETICS

Epigenetics is the study of gene expression based on experiences (e.g., how people live, diet, stress levels, smoking habits) and other environmental factors; epigenetics can also be referred to as **gene-environment interactions**.

Genes may turn on and off depending on these experiences and surrounding factors. This applies to the genes in sperm as well, which may result in affecting the health of a man's future children.

OBJECTIVE

This study seeks to gain insights on the perspectives of prospective fathers on the transfer of epigenetic information from parent to offspring.



METHODOLOGY

In-depth interviews were conducted to examine how epigenetic health information is being incorporated into the preconception/reproductive lifestyle choices of prospective fathers.

INTERVIEW QUESTIONS

- Have you made any changes to your diet and lifestyle in light of planning to have children?
- How do you believe your prior and current health status, behavior, and lifestyle could affect the health of your future children?
- Do you think you have any control over what gets passed on to your children?
- As far as you know and believe, is it possible that experiences can have an effect on the next generation?
- Things like how people live, their diet, smoking habits, stress levels, and other things—do you think these are inherited?
- What impacts do you believe fathers have on the health of their future children before conception, and before birth?

PROSPECTIVE FATHERS' PERSPECTIVES

"Genetics are genetics. I can't - I don't - at least my opinion would be that the experiences I have aren't gonna affect like how I'm genetically made."



Chris, 32



Ben, 28

"[...] regardless of the hand you're dealt, [...] your experiences will probably also dictate how you respond to things like stress and nutrition and fitness. And I think that it's kind of all connected. [...] your experiences would largely define how any of those factors manifest in a person and they would have to have an effect on your children as well."

The names used above are pseudonyms to help protect the participants' confidentiality.

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[1] Lambrot, R. et al. 2013. "Low Paternal Dietary Folate Alters the Mouse Sperm Epigenome and Is Associated with Negative Pregnancy Outcomes." *Nature Communications* 4(1).