Study: Dads Who Exercise Pass the Benefits to Their Children

Moderate exercise before conception resulted in lower body weight, increased insulin sensitivity of offspring

The Ohio State University Wexner Medical Center

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NEWS PACKAGE

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SUGGESTED TEASE	SOON-TO-BE-MOMS KNOW THAT EATING RIGHT AND EXERCISING IS IMPORTANT TO THE HEALTH OF THEIR BABIES – BUT WHAT ABOUT DADS? COMING UP, A NEW STUDY EXAMINES HOW A FATHER'S LIFESTYLE MAY IMPACT THE HEALTH OF HIS CHILDREN.	
ANCHOR LEAD	THERE'S A LOT OF INFORMATION ABOUT DIET AND EXERCISE TO HELP PREGNANT WOMEN OPTIMIZE THE HEALTH OF THEIR BABIES, BUT WHAT ABOUT DADS? A NEW STUDY SHEDS LIGHT ON THE ROLE A FATHER'S HABITS PLAY IN THE LIFELONG HEALTH OF HIS CHILDREN. BARB CONSIGLIO EXPLAINS WHAT A SOON-TO-BE FATHER CAN DO TO INFLUENCE THE TRAITS HE'LL PASS ALONG.	
(PACKAGE START)	(Nats - Sound) :02 MATTHEW HURT TRIES TO STAY ACTIVE, AND WANTS TO INSTILL THE SAME HEALTHY HABITS IN HIS FIVE-YEAR-OLD SON. :06	
CG: Matthew Hurt Dad	"I want it to be just natural for them. I don't want it to be a chore. I want them to just want to go outside, want to be active and enjoy life to its fullest." :08	
Shots of Matt playing on playground with two sons	WHAT MATTHEW DIDN'T KNOW WAS THAT HIS ACTIVE LIFESTYLE MAY HAVE GIVEN HIS CHILDREN A HEAD START ON THEIR HEALTH BEFORE THEY WERE BORN. A NEW STUDY SUGGESTS THAT WHEN A FATHER EXERCISES PRIOR TO CONCEPTION, EVEN AT A MODERATE LEVEL, IT HAS LIFELONG BENEFITS FOR HIS CHILD. :15	

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CG: Kristin Stanford, PhD Ohio State Wexner Medical Center

"That resulted in an improved metabolic health in their adult offspring. Essentially, it improved their glucose metabolism, decreased body weight and increased their insulin sensitivity.":07

Shots of Stanford in office

KRISTIN STANFORD AND HER TEAM AT THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER STUDIED GROUPS OF MALE MICE AND FOUND THAT EXERCISE IMPROVED THE METABOLIC HEALTH OF BOTH MALE AND FEMALE OFFSPRING THROUGH ADULTHOOD. :10

Kristin Stanford (CG'd earlier)

"The idea would be that if you have a dad who wants to have a child, if they would exercise maybe just a month prior to conception, that would have a really dramatic effect on their child's life." :08

Shots of researchers in lab

RESEARCHERS ALSO FOUND THAT EXERCISE HELPED EVEN WITH A POOR DIET.

SEDENTARY MICE FED A HIGH-FAT DIET PASSED ALONG NEGATIVE HEALTH ISSUES SUCH AS OBESITY AND INSULIN RESISTANCE.

BUT WHEN THEY EXAMINED THE SMALL R-N-A MOLECULES THAT DETERMINE HOW GENES ARE EXPRESSED, THEY WERE SURPRISED TO FIND THAT THE NEGATIVE EFFECTS OF A HIGH-FAT DIET WERE COMPLETELY REVERSED BY EXERCISE. :22

Kristin Stanford (CG'd earlier)

"A high-fat diet, even mild high-fat diet, in this case it was only three weeks, changes the profile, but exercise kind of restored it back to normal.":07

Shots of Matt on playground with sons

WITH ALL THE PREPARATIONS MADE BY SOON-TO-BE-DADS, EXPERTS SAY IMPLEMENTING AN EXERCISE ROUTINE IS A SIMPLE STEP THEY CAN TAKE FOR THE HEALTH OF THEIR FUTURE CHILDREN.

(PACKAGE END) -----

AT THE OHIO STATE WEXNER MEDICAL CENTER, THIS IS BARB CONSIGLIO REPORTING. :13

ANCHOR TAG

EXPERTS SAY THE NEXT STEP IS TO EXAMINE EXACTLY WHAT CAUSES THESE GENETIC CHANGES SO THAT RESEARCHERS CAN DEVELOP WAYS TO PREVENT DISEASES LIKE DIABETES AND OBESITY IN THE FUTURE.

SOCIAL MEDIA

Share it! Suggested tweet:

A father's healthy habits may give their children a genetic head start. A new study by researchers @OSUWexMed finds that dads who exercise before

conception pass healthier metabolic traits to their children. http://bit.ly/2P40ALE

Suggested post:

We know a soon-to-be mom's diet and exercise habits affect the health of her baby, but what role does dad play? A new study by researchers at The Ohio State University Wexner Medical Center finds that fathers who exercise prior to conception may pass along the metabolic benefits to their children. http://bit.ly/2P40ALE

EXTRA BITES

Stanford says exercise negated the effects of a high-fat diet: "When we put these dads on a high-fat diet, their offspring behaved worse, so they were more glucose intolerant. However, exercise actually negated that effect."

CG: Kristin Stanford
Ohio State Wexner Medical Center

Stanford says exercise changed small RNA in mice: "We did a full small RNA sequencing and saw that all these different classes of small RNA were changed in response to exercise."

Stanford says exercise is important for soon-to-be fathers: "This would suggest that if you're a man getting ready to have a baby, it doesn't really matter what you eat. As long as you're exercising, you're going to see improved health in your offspring."

Matthew says it's important to teach healthy habits to his kids: "It's been really important for us to have them eating well and just getting them away from the screens and the technology. Swimming, we like to play at this park a lot, fishing, walking through the creek."

CG: Matthew Hurt Dad

Matthew says being active is fun and beneficial for his kids: "You want them to appreciate the outdoors and riding a bike and putting a playing card in the spoke of your bike wheel, and just have a great time, and knowing how that is something that is fun, and that is something that, while it is fun, it's also something that's really just helping you lead a better lifestyle."

References

¹Paternal Exercise Improves Glucose Metabolism in Adult Offspring, **Diabetes, Volume 67, Issue 11, November, 2018**. Online: <u>put link here</u>.

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