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GROWING UP TODAY STUDY

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To the loyal members of GUTS,

Happy 15th anniversary, GUTS! The Growing Up Today Study started in 1996. That means GUTS I participants have been filling out surveys for fifteen years, and GUTS II participants for seven years. How many things in your life can you say you've been a part of for that long? Congratulations on making it this far: together we will answer many important questions about how health can be maximized.

Each passing year (and each questionnaire) gives us more valuable information about young adult health and solidifies GUTS as one of the most important studies in the United States. Only with your help can we continue to build on all we have done to date.

Thanks again for your dedication to our study, and for all your comments and feedback. Don't forget to follow us on Facebook for the latest GUTS news!

A. Lindsay Frazier, M.D.

P.S. Even if it's been a while, we always love to hear from you!

News from GUTS Researchers

ONE OF THE COMMENTS WE GET MOST OFTEN (on questionnaires, in emails, and on Facebook) is, "What are the findings?" We asked GUTS researchers to tell us about some the results of GUTS research, and what new projects are in store for some GUTS participants.

Stress Fractures



A stress fracture is a tiny crack in a bone, usually as a result of overuse or increased physical stress. We found that GUTS female participants who spent more time participating in high-impact sports such as basketball, running, cheerleading, and gymnastics, ran a higher risk of stress fractures (Field et al. Arch Pediatr Adolesc Med 2011). Although physical activity generally promotes bone health, high levels of intensity can be detrimental.

This is particularly interesting as many young athletes are beginning to concentrate on one sport year-round rather than practicing different sports in different seasons. Since women are at a higher risk for osteoporosis to begin with and more than half of adult bone density is acquired during adolescence, this type of research is important to our understanding of bone health and disease throughout life. Remember in last year's newsletter we told you about our plans to study the changes in sexual orientation over time? Well, here's what we found—and it's not what we expected.

Sexual Orientation

GUTS women overall showed more changes in their sexual orientation over time than GUTS men, although sexual minorities (those who did not identify as "completely heterosexual") had similar levels of mobility across both genders. Contrary to what the researchers predicted, changes in sexuality occurred at similar rates throughout adolescence and young adulthood. Also, the majority of participants who described themselves as

unsure of their orientation eventually went on to describe themselves as completely heterosexual (Ott et al. Arch Sex Behav 2011).

Recent GUTS Publications

- GUTS participants who were more concerned with their weight were at greater risk of becoming overweight and of developing disordered eating behaviors such as purging and binge eating. (Haines J et al. Arch Ped Adolesc Med 2010)
- Among GUTS female participants who were trying to lose weight or maintain their weight, those who combined frequent exercise with portion control gained the least weight. (Field AE et al. Am J Clin Nutr 2010)
- GUTS participants (especially boys) who were exposed to domestic violence growing up were more likely to be overweight through childhood and adolescence. (Jun H-J et al. J Epidem and Comm Health 2011)
- Study members who identified as sexual minorities were more likely to use illegal drugs and misuse prescription drugs than heterosexual participants, especially between the ages of 12 and 17. (Corliss HL et al. Addict Behav 2010)
- Female study members were more likely to develop benign breast disease if they were thin as children, experienced rapid growth spurts during adolescence, or were taller as adults. (Berkey CS et al. Cancer 2011)

Visit www.gutsblog.com for a full list of GUTS publications.

New Projects and Areas of Research

Male Fertility

Although many studies focus on female fertility, relatively few concentrate on men's ability to conceive. We are in a unique position to collect information on a large

group of young men and their fertility. It's a particularly interesting time to be looking at this considering the many hypotheses about modern environmental exposures that

may lower fertility, such as endocrine disruptors in certain plastics (e.g., BPA) and even holding your laptop on your lap. We are beginning to collect semen samples by mail from a subset of GUTS men in order to analyze sperm quality and motility. This

project will be one of the first to looks at the fertility of men in their 20s. Remember, it's all for science, people!



Did You Know?

We run a number of sub-studies every year, some of which offer compensation. If you've filled out your most recent questionnaire, you might be invited!

Endometriosis

Endometriosis—which occurs when tissue like that of the uterine lining grows outside the uterus—can cause severe pain and potentially affect fertility. Little is known about how to prevent or treat the disease, particularly in young women. GUTS researchers are following up to confirm cases of endometriosis in GUTS women.

Stress

We know that one's 20s can be a very stressful time in life, but few researchers have examined this topic in a young

adult population. A new study currently going on in GUTS 1 is looking at whether or not daily stress can affect a hormone called cortisol in the body. Cortisol is relatively easy to study because it is secreted into saliva, so we can measure your "stress" response by examining your spit!



Happy 15th Birthday, GUTS!

IT'S BEEN FIFTEEN YEARS since we sent out the first survey to GUTS I participants in 1996 (and seven years since the beginning of GUTS 2!). A little flashback to your responses to those first questionnaires . . .

GUTS 1 1996:

- Almost half of you spent more than two hours a week playing outside (jump rope, kickball, etc.).
- Fifty-three percent of you spent ten hours or more on homework each week.
- Forty-two percent ate dinner with their families every day.
- Almost 17% drank apple juice every day.

GUTS 2 2004:

- The average participant ate 1.8 servings of vegetables and 2.0 servings of fruit per day.
- Twenty-two percent were under five feet tall, and a third of you weighed 100 pounds or less.
- Seventy percent of boys and 15% of girls spent at least an hour every weekend playing video games.
- More than 60% of you drank milk every day and 10% ate cookies every day.

Your Top Questions

About GUTS

Since its inception, GUTS has expanded its original mission to cover a diverse range of topics that reflect the fact that you are now young adults. GUTS is important because not only do we have an opportunity to learn more about health and disease in young adults, we can also learn more about diseases that run in families, since we have information about your mom's health as well.

"Am I too old for this?"

Even though the study is called "Growing Up Today," we still want to hear from you in your 20s, 30s, and beyond. You're never too old for GUTS! Since you answered surveys when you were much younger, each questionnaire you answer now helps us learn more about how diet and lifestyle habits in childhood can affect health in young adulthood and beyond. GUTS is one of the only studies in the world that can study this, thanks to your participation!

Other Questions?

Contact us:

Email: guts@channing.harvard.edu

Tel: (617) 525-2279



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"Why is this survey so long?"



We're very sorry if you felt that the survey was too long. Each year it is a balancing act to try and get as much information

as possible into the survey without taking up too much of your time. This year, we received a variety of comments on the length of the survey, from those who thought it was much too long to those who believed we should bring back certain sections or make it longer, and we will take all these into serious consideration in designing the next study. We realize that your lives are very busy and we truly appreciate you taking the time to contribute to the study of important health issues in young adults.

"Are you going to report my results to the cops/government?"

NO, we do NOT inform anyone about your results. In fact, we are so serious about your privacy that

we have what's called a "certificate of confidentiality" from the federal government. Basically, that means that even if we were subpoenaed by law enforcement officials, we are legally allowed to refuse to release any of your data. This protects all the information you provide us.

Who We Are

Ever wonder who exactly makes up the GUTS questionnaires you receive? Here are the researchers and support staff who work together to send each questionnaire to you.

They decide what topics to investigate and what questions to ask, design the paper and Web questionnaires you fill out, coordinate the coding room, where your questionnaires are processed, manage the GUTS Facebook page and Web sites, and more!

