

Celebrating 20 Years of GUTS Research



Dear GUTS Community,

Stacey A. Missmer, ScD
Director of GUTS

Thank you for making our 20th anniversary possible!

This year we are looking back at all we have accomplished and looking forward to the opportunities the future holds. I encourage you to take a moment to appreciate how the combined efforts of many individual participants over the past 20 years have helped to make GUTS one of the most influential health studies of this generation.

As the GUTS cohort grows older, the world continues to change. Your ongoing participation allows GUTS researchers the opportunity to examine the effects of changing medical and lifestyle practices on health as we age.

Each of our participants is a unique and irreplaceable part of the GUTS community. We love hearing from you—keep sending comments and questions to me at guts@channing.harvard.edu.

Thanks again you for all you do!

Stacey A. Missmer, ScD
Director of the Growing Up Today Study

Published GUTS Research Topics

With your help, GUTS researchers have been able to uncover ground-breaking findings on a wide variety of pressing health topics over the past 20 years.

We couldn't have done this without you!

Research Topic	# of papers
Weight Gain & Obesity	45
Cancer Risk Factors	35
Diet & Nutrition	32
Substance Use	31
Sexual Orientation & Gender	31
Disordered Eating	25
Maternal Factors & Genetics	22
Mental Health	15
Physical Activity	14
Peer & Media Influences	13
Benign Breast Disease	11
Violence, Abuse & Trauma	11
Pregnancy & Reproductive Health	11
Skin Health	7
Self-Perception & Body Satisfaction	7
Bone Health	5
Breast Feeding	5
Family Dinner	5
Screen Time	4
Sexual Initiation	3
Allergies & Autoimmune Disease	1

A full list of GUTS publications is available at:
www.gutsweb.org/publications



Investigating Sleep Patterns & Behaviors

GUTS recently received special funding to investigate how sleep behaviors are shaped and how they may influence health over a lifetime.

As part of this initiative to investigate sleep and long-term health, we are launching the [GUTS Biorhythm Study](#). Throughout the coming year, eligible GUTS participants will be invited to join this unique biospecimen collection.

A key part of the [GUTS Biorhythm Study](#) will be the collection of first morning urine samples, which contain a hormone called melatonin. Melatonin is closely tied to sleep regulation and is easily detected in urine, which makes it an ideal biomarker for investigating circadian rhythm.

Participants enrolled in this study will also be asked to complete a questionnaire about their sleep patterns. Together, the questionnaires and biospecimens will give GUTS researchers the opportunity to further explore some recent scientific findings regarding sleep.

Of particular interest are findings that suggest a mother's sleep behavior during pregnancy may impact her child's sleep behavior, even as that child ages into adulthood. As a cross-generational study with NHSII, GUTS has a singular opportunity to examine how a parent's behavior can shape a child's health in the long term.

If you are eligible to participate in this one-of-a-kind study, you will receive

an invitation from us soon. We hope you will have time to participate!

For those of you who are already enrolled, please email us if you have any questions: gutsbiorhythm@partners.org

Invitations will arrive soon!

GUTS Biorhythm Study (GBS)

Substance Use and Treatment Follow-up Study

The response was outstanding - thank you!

We would like to say a special "thank you" to everyone who participated in the GUTS Follow-Up Questionnaire on Substance Use and Treatment. We saw one of the best response rates we've ever had for a follow-up study and this makes it clear to us how widely valued this area of research is.

Thanks to your responses, this study will improve our knowledge about both the benefits of moderate substance use and the ways to better assist those seeking help for a substance use problem.

We recognize that, for many of you, not all the questions used in this study will have applied to your personal experiences. Many of the questions were pulled from previously validated studies, and some were originally written for those struggling with substance abuse. We hope that you can understand the use of standardized language.

Regardless of your own substance use behaviors, each one of you added a valuable perspective to this evolving and complex subject.

The questions used in this study were for research purposes only and were not intended to provide medical advice, diagnosis, or treatment. If you or someone you know may need help for their substance use, we encourage you to contact the national hotline below.

Substance Abuse and Mental Health Services Administration's (SAMHSA) National Helpline : 1-800-662-HELP (4357)



Preventing Hearing Loss

Recent analyses from the 2013 GUTS questionnaire indicate that a large proportion of GUTS participants reported having had substantial exposure to potentially harmful noise during their teens and early 20's: almost half of the 2013 responders reported having spent **3 or more hours per week in very noisy activities** without the use of ear protection.

In addition, **more than 1/3 reported** that they used headphones or earbuds with the **volume set above the loudest recommended safe listening level** (60% of maximum) for 3 or more hours per week during their teens or 20's.

In an effort to further investigate hearing loss and its prevention in young adults, we are beginning to collaborate with the Conservation of Hearing Study (CHEARS). CHEARS is already working with participants from the Nurses' Health Study and the Health Professionals Follow-up Study to identify factors that may influence hearing and prevent hearing loss (www.chearsstudy.org.)

While many people think hearing loss is a common and disabling condition that is an unavoidable part of aging, recent findings from the Conservation of Hearing Study (CHEARS) suggest that **~20% of individuals in the US have some hearing loss before age 20**. As part of its efforts, CHEARS research has also found a number of factors—things that we can modify in our lives—that are correlated with preventing or delaying hearing loss.

Factors that may **prevent or delay hearing loss** include:

- avoiding excessive noise exposure
- avoiding over-the-counter pain relievers
- maintaining a healthy weight
- eating fish
- staying physically active

To find out more about preventing hearing loss, visit the Conservation of Hearing Study website at: www.chearsstudy.org.

GUTS Feedback Booth

Your feedback helps us to improve future questionnaires and address commonly asked questions.

How long will GUTS go on for?

We hope to keep GUTS research going for as long as possible. GUTS is part of a unique group of longitudinal health studies based at Harvard Medical School which investigate factors that influence health over a lifetime. With two decades of health data already collected and many more ahead, GUTS will continue to advance our understanding of health and wellness. We couldn't do any of this without you. Thank you!

When will coconut oil be added to the questionnaire?

The GUTS team regularly reviews foods that are rising in popularity such as coconut oil, almond butter, nut-based milks, and kombucha. If there is evidence that at least 10% of participants are regularly consuming a new food item, we can add it to the questionnaire. This requirement ensures that our analyses are meaningful and allows us to investigate otherwise easy-to-miss relationships.



Am I still in the study?

Yes, and your participation is always valuable to us, even if it's been a while since we last heard from you!

Visit www.gutsweb.org or contact us at guts@channing.harvard.edu to access your current questionnaire.

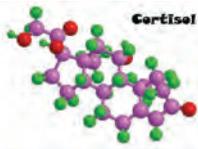
Do you have a question or comment?

We love hearing from you!

email: guts@channing.harvard.edu

tel: (617)525-2279

website: www.gutsweb.org



Tracking Stress: Cortisol and other Biomarkers

GUTS researchers are currently using saliva to study how stress affects health. This is a rapidly growing area of public health interest, and it is rare that this kind of research can be done in a study as large and as long-standing as GUTS!

Thanks to the many participants who contributed samples to the GUTS Saliva Study between 2012 and 2014, we are now able to investigate the effect of stress on a biological level. Participants in this follow-up study were asked to collect 5

saliva samples over the course of one day, while carefully recording their feelings and stress levels at each collection time point. By collecting saliva samples and questionnaire responses at the same time, we are able to look at biological markers that help illuminate the body's natural rhythms and responses to stress.

One of these biomarkers is cortisol, a hormone linked to the body's daily patterns. Cortisol plays an important role in the body during stressful

events, and researchers are using the cortisol found in the saliva samples to investigate how our bodies respond to and recover from threats or stressors.

Much remains to be discovered about how cortisol influences other health outcomes. Continuing research with these valuable biological samples will help scientists develop a better understanding of how stressful life experiences "get under the skin." Stay tuned for more updates!

Growing Up Today Study

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20TH ANNIVERSARY

1996-2016

2016 | NEWSLETTER

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