Effects of Neuromodulation in Laryngeal Dystonia

NCT05095740

Informed Consent Form
Healthy Subjects
Approved 11/18/21

Partners HealthCare System
Research Consent Form

Subject Identification

Certificate of Confidentiality Template
Version Date: January 2019

Protocol Title: The effects of neural modulation on phonatory function in laryngeal dystonia- Coil Intensity Investigation

Principal Investigator: Dr. Teresa Kimberley

Site Principal Investigator: N/A

Description of Subject Population: Healthy Adults

About this consent form

Please read this form carefully. It tells you important information about a research study. A member of our research team will also talk to you about taking part in this research study. People who agree to take part in research studies are called "subjects." This term will be used throughout this consent form.

Partners HealthCare System is made up of Partners hospitals, health care providers, and researchers. In the rest of this consent form, we refer to the Partners system simply as "Partners."

If you decide to take part in this research study, you must sign this form to show that you want to take part. We will give you a signed copy of this form to keep.

Key Information

Taking part in this research study is up to you. You can decide not to take part. If you decide to take part now, you can change your mind and drop out later. Your decision won't change the medical care you get within Partners now or in the future.

The following key information is to help you decide whether or not to take part in this research study. We have included more details about the research in the Detailed Information section that follows the key information.

Why is this research study being done?

We are doing this research as part of a larger study that tests the safety and effectiveness of repetitive transcranial magnetic stimulation (rTMS) as an intervention for laryngeal dystonia. Dystonia is associated with abnormal activity in the brain, specifically increased excitability in the motor region of the brain. rTMS has been shown to regulate excitability by increasing inhibition in the brain.
This portion of the study is testing for differences in TMS coil output between the testing coil and the intervention coil that are used in the larger study.

How long will you take part in this research study?

If you decide to join this research study, you will be seen for 1 or 2 visits. For each visit you will travel to see us at the Brain Recovery Lab in the MGH Voice Center at 1 Bowdoin Square in Boston. Each session will take between 1-3 hours.

What will happen if you take part in this research study?

If you decide to join this research study, the following things will happen:

You will be screened to see if you qualify for the study and then provide your informed consent prior to participation. TMS will involve assessing the way your brain controls your muscles. For this, you will be seated in a reclining chair. First, electrodes will be taped to your hand muscles. Next, we will sync your brain image with your head using our camera system. We do this by placing a marker on your head and pointing at spots on your face. You will be asked to wear a small tracker like a headband on your head so that the camera can locate you. For the TMS, a figure-8 coil that looks like a wand will be positioned over your head. A very brief pulse of electrical current will pass through the coil once every 5-10 seconds and this will create a magnetic field that will pass through your skull and activate the brain. For this you may feel a small tapping sensation on the scalp and hear a snap sound. After each pulse of stimulation, we will check for a response from your muscle and lower the stimulation intensity for subsequent pulses until no response is seen. We will then move to another nearby site and do the same procedure until we locate the best position and stimulation intensity for our testing. We will perform the TMS testing procedures with a figure-8 assessment coil and an aircooled coil, which is used during rTMS treatment. We will not be providing any treatment as part of this study.

Why might you choose to take part in this study?

There are no direct benefits to you to participate in this study. These results will improve our understanding of equipment used during repetitive transcranial magnetic stimulation (rTMS) and may be a useful for future research on finding more long-term benefits associated with rTMS.

Why might you choose NOT to take part in this study?

Taking part in this research study has some risks and requirements that you should consider carefully.

The potential side effects of TMS include temporary changes in hearing, headache, dental pain and neck stiffness or neck pain. There have been rare reports of a seizure and induced mania from TMS. If you have a history of seizure within the last two years or bipolar disorder you will not be allowed to participate in this study.

A detailed description of side effects, risks, and possible discomforts can be found later in this consent form in the section called "What are the risks and possible discomforts from being in this research study?"

Other things to consider are the distance you need to travel to our study site in Boston, Massachusetts and the time commitment of a 2-3 hours in up to two visits.

What other treatments or procedures are available for your condition?

N/A

If you have questions or concerns about this research study, whom can you call?

You can call us with your questions or concerns. Our telephone numbers are listed below. Ask questions as often as you want.

Teresa Kimberley, PhD, PT is the person in charge of this research study. You can call her at 617-643-6564 Monday-Friday from 9AM-5PM.

You can also call Olivia Newman at 617-643-6564 Monday through Friday from 9AM-5PM. with questions about this research study.

If you have questions about the scheduling of appointments or study visits, call Olivia Newman at 617-643-6564.

If you want to speak with someone **not** directly involved in this research study, please contact the Partners Human Research Committee office. You can call them at 857-282-1900.

You can talk to them about:

- Your rights as a research subject
- Your concerns about the research
- A complaint about the research
- Any pressure to take part in, or to continue in the research study

Detailed Information

A description of this clinical trial will be available on *http://www.ClinicalTrials.gov,* as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

Why is this research study being done?

Laryngeal dystonia (LD) is a disorder that causes uncontrolled spasms of laryngeal muscles during speech, causing severe speaking difficulty and a reduction in quality of life. Although the cause of the disorder is not fully understood and there are no treatments for LD that produce long-term benefits, our recent findings have discovered that LD is associated with a *decrease of brain inhibition* compared to people without LD, which may be linked to the spasms. The larger study builds on these findings to determine if repetitive transcranial magnetic stimulation (rTMS), which increases brain inhibition, enhances voice function or changes brain excitability. However, the aircooled TMS coil used to provide the rTMS treatment may deliver the stimulation differently from the testing coil. This is potentially problematic because the testing coil is used to determine the optimal stimulation intensity used for both testing and treatment. The portion of the study is testing for differences in TMS coil stimulation output between the testing coil and the intervention coil. This information can then be applied to studies, including ours, that use an aircooled rTMS coil.

Who will take part in this research?

We are asking you to take part in this research study because you are a healthy adult with no neurologic conditions between the ages of 18 and 75.

About 50 people will take part in this research study.

The National Institutes of Health is paying for this research study to be done.

What will happen in this research study?

On the first day, you will be asked questions about your health history including seizure history and medication use to see if you qualify for the study.

During each visit you will receive testing delivered via TMS. You will be seated in a reclining chair. We will wipe your hands with an alcohol prep and then tape small electrodes to a muscle on your hands. Next, we will sync an MRI image of a template brain with your head using our camera system. We do this by taping a small 3D printed tracker on your forehead and

pointing at spots on your face and head to sync with the computer. We will tape a small tracker to your forehead so that the camera can locate you. Then, the TMS coil, shaped like a figure-8 coil will be positioned over a site that corresponds to the area of your brain that controls a target muscle. A very brief pulse of electrical current will pass through the coil once every approximately 5-10 seconds and this will create a magnetic field that will pass through your skull and activate the brain. For this, you will feel a tapping sensation on the scalp. You will also hear a clicking noise. After each pulse of stimulation, we will check for a response from your muscle and lower the stimulation intensity for subsequent pulses until no response is seen. We will then move the coil to another nearby site and do the same procedure. At the end of this we will mark the best location for producing a response in your muscle with the lowest intensity of stimulation. We will perform the TMS testing procedures with a figure-8 assessment coil and an aircooled coil, which is used during rTMS treatment. The aircooled coil will only be used for testing the lowest intensity of stimulation needed to find a response from your muscle. We will not be providing any treatment as part of this study.

Total time for participation on the first day will be approximately 1-3 hours.

How may we use and share your samples and health information for other research?

The samples and information we collect in this study may help advance other research. If you join this study, we may remove all information that identifies you (for example your name, medical record number, and date of birth) and use these de-identified samples and data in other research. It won't be possible to link the information or samples back to you. Information and/or samples may be shared with investigators at our hospitals, at other academic institutions or at for-profit, commercial entities. You will not be asked to provide additional informed consent for these uses.

Will you get the results of this research study?

It is important to remember that research results are not always meaningful and are not the same as clinical tests. While you should not expect to get any information about the results of your participation in this research, if experts from the study decide that research results from your samples are of high medical importance, we will attempt to contact you. In some situations, follow-up testing might be needed in a certified clinical lab. You and your medical insurer may be responsible for the costs of these follow-up tests and any follow-up care, including deductibles and co-payments.

You can choose to get a newsletter that will tell you about the research studies we are doing. This newsletter will not announce your results or anyone else's, but it will tell you some

information about what we are learning about laryngeal dystonia. We will also publish what we learn in medical journals. In the future, when research results are published, they may show that certain groups (for example, racial or ethnic groups, or men/women) have genes that are associated with increased risk of a disease. If this happens, you may learn that you are at increased risk of developing a disease or condition.

What are the risks and possible discomforts from being in this research study?

Risks related to TMS

The potential side effects of TMS include temporary hearing threshold shifts, headaches, and neck stiffness or neck pain. There have been reports of a seizure and induced mania from TMS but none of these side effects have been reported with the type of TMS testing we are doing in this study. However, if you do have a history of seizure within the last two years or bipolar disorder you will not be allowed to participate in this study. The possibility exists for a temporary headache due to the TMS head tracking device worn on the head. There is also a risk for dental pain. If either of these pains occur, we will manage them by administering acetaminophen. There is a risk of TMS-induced mania. We will manage this risk by not including any subjects with a history of bipolar disorder. The effect of TMS on the unborn fetus is not known and participating women should not be pregnant. We may discontinue the intervention without your consent if we recognize any abnormal signals in muscle recordings or any abnormal behavioral responses.

There may be other risks that are currently unknown.

What are the possible benefits from being in this research study?

There are no direct benefits to you to participate in this study. These results will improve our understanding of equipment used during repetitive transcranial magnetic stimulation (rTMS) and may be a useful for future research on finding more long-term benefits associated with rTMS. The outcomes of this study will facilitate the development of appropriate neuromodulation parameters to treat laryngeal dystonia, including identification of responders and non-responders.

What other treatments or procedures are available for your condition?

N/A

Can you still get medical care within Partners if you don't take part in this research study, or if you stop taking part?

Yes. Your decision won't change the medical care you get within Partners now or in the future. There will be no penalty, and you won't lose any benefits you receive now or have a right to receive.

We will tell you if we learn new information that could make you change your mind about taking part in this research study.

What should you do if you want to stop taking part in the study?

If you take part in this research study, and want to drop out, you should tell us. We will make sure that you stop the study safely. We will also talk to you about follow-up care, if needed.

Also, it is possible that we will have to ask you to drop out of the study before you finish it. If this happens, we will tell you why. We will also help arrange other care for you, if needed.

Will you be paid to take part in this research study?

You will receive a $25 Amazon gift card for your participation in this study.
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What will you have to pay for if you take part in this research study?

Study funds will pay for certain study-related items and services. We may bill your health insurer for, among other things, routine items and services you would have received even if you did not take part in the research. You will be responsible for payment of any deductibles and co-payments required by your insurer for this routine care or other billed care. If you have any questions about costs to you that may result from taking part in the research, please speak with the study doctors and study staff. If necessary, we will arrange for you to speak with someone in Patient Financial Services about these costs.

What happens if you are injured as a result of taking part in this research study?

We will offer you the care needed to treat any injury that directly results from taking part in this research study. We reserve the right to bill your insurance company or other third parties, if appropriate, for the care you get for the injury. We will try to have these costs paid for, but you may be responsible for some of them. For example, if the care is billed to your insurer, you will be responsible for payment of any deductibles and co-payments required by your insurer.

Injuries sometimes happen in research even when no one is at fault. There are no plans to pay you or give you other compensation for an injury, should one occur. However, you are not giving up any of your legal rights by signing this form.

If you think you have been injured or have experienced a medical problem as a result of taking part in this research study, tell the person in charge of this study as soon as possible. The researcher's name and phone number are listed in the beginning of this consent form.

If you take part in this research study, how will we protect your privacy?

Federal law requires Partners to protect the privacy of health information and related information that identifies you. We refer to this information as "identifiable information."

In this study, we may collect identifiable information about you from:

- Past, present, and future medical records
- Research procedures, including research office visits, tests, interviews, and questionnaires

Who may see, use, and share your identifiable information and why:

- Partners researchers and staff involved in this study
- The sponsor(s) of the study, and people or groups it hires to help perform this research or to audit the research
- Other researchers and medical centers that are part of this study
- The Partners ethics board or an ethics board outside Partners that oversees the research
- A group that oversees the data (study information) and safety of this study
- Non-research staff within Partners who need identifiable information to do their jobs, such as for treatment, payment (billing), or hospital operations (such as assessing the quality of care or research)
- People or groups that we hire to do certain work for us, such as data storage companies, accreditors, insurers, and lawyers

- Federal agencies (such as the U.S. Department of Health and Human Services (DHHS) and agencies within DHHS like the Food and Drug Administration, the National Institutes of Health, and the Office for Human Research Protections), state agencies, and foreign government bodies that oversee, evaluate, and audit research, which may include inspection of your records
- Public health and safety authorities, if we learn information that could mean harm to you or others (such as to make required reports about communicable diseases or about child or elder abuse)
- Other researchers within or outside Partners, for use in other research as allowed by law.

Certificate of Confidentiality

A federal Certificate of Confidentiality (Certificate) has been issued for this research to add special protection for information and specimens that may identify you. With a Certificate, unless you give permission (such as in this form) and except as described above, the researchers are not allowed to share your identifiable information or identifiable specimens, including for a court order or subpoena.

Certain information from the research will be put into your medical record and will not be covered by the Certificate. This includes records of medical tests or procedures done at the hospitals and clinics, and information that treating health care providers may need to care for you. Please ask your study doctor if you have any questions about what information will be included in your medical record. Other researchers receiving your identifiable information or specimens are expected to comply with the privacy protections of the Certificate. The Certificate does not stop you from voluntarily releasing information about yourself or your participation in this study.

Even with these measures to protect your privacy, once your identifiable information is shared outside Partners, we cannot control all the ways that others use or share it and cannot promise that it will remain completely private.

Because research is an ongoing process, we cannot give you an exact date when we will either destroy or stop using or sharing your identifiable information. Your permission to use and share your identifiable information does not expire.

The results of this research may be published in a medical book or journal, or used to teach others. However, your name or other identifiable information **will not** be used for these purposes without your specific permission.

Your Privacy Rights

You have the right **not** to sign this form that allows us to use and share your identifiable information for research; however, if you don't sign it, you can't take part in this research study.

You have the right to withdraw your permission for us to use or share your identifiable information for this research study. If you want to withdraw your permission, you must notify the person in charge of this research study in writing. Once permission is withdrawn, you cannot continue to take part in the study.

If you withdraw your permission, we will not be able to take back information that has already been used or shared with others, and such information may continue to be used for certain purposes, such as to comply with the law or maintain the reliability of the study.

You have the right to see and get a copy of your identifiable information that is used or shared for treatment or for payment. To ask for this information, please contact the person in charge of this research study. You may only get such information after the research is finished.

Informed Consent and Authorization

Statement of Person Giving Informed Consent and Authorization

- I have read this consent form.
- This research study has been explained to me, including risks and possible benefits (if any), other possible treatments or procedures, and other important things about the study.
- I have had the opportunity to ask questions.
- I understand the information given to me.

Text communication with research staff

Text messages by mobile/cell phones are a common form of communication. This study involves sending you text messages that are relevant to the research study. Texting over mobile/cell phones carries security risks because text messages to mobile/cell phones are not encrypted. This means that information you send or receive by text message could be intercepted or viewed by an unintended recipient, or by your mobile/cell phone provider or carrier. If you want to receive communications by unencrypted texts despite these risks, MGB/Partners HealthCare will not be held responsible for any interception of messages sent through unencrypted text message communications.

Below are some important points about texting in this research study.

-Please do not text us any information about your health. This is to protect your privacy. If you need to tell us anything related to your health, please call us instead.
-You will be responsible for all fees charged by your carrier's service plan for text messaging. This research study and MGB/Partners Healthcare are not responsible for any increased charges, data usage against plan limits or changes to data fees from the research texts. (If participants are paid/given stipends to cover potential charges, state that.)
-Text messages will only be read during regular business hours. Texts sent on nights or weekends will not be read until the next business day.
-Text messaging should not be used in case of an emergency. If you experience a medical emergency, call 911 or go to the nearest hospital emergency department.
-You may decide to not send or receive text messages with staff associated with this research study at any time. You can do this in person or by sending the research number a text message that says "Stop Research Text."
-Your agreement applies to this research study only. Agreeing to other texts from MGB/Partners Healthcare, for example appointment reminders, is a separate process. Opting out of other texts from MGB/Partners Healthcare is a separate process as well.
-It is my responsibility to update my mobile/cell phone number with this research study in the event of a change.
I have had the chance to ask questions about texting with staff associated with this research study. I have been informed of the risks and other information covered above and consent to the use of unencrypted text communications associated with this research study.
Please select one of the following options:
I consent to text messages for scheduling and appointment reminders (please use your initials to indicate your response):

Yes: _____ No: _____

Signature of Subject:

I give my consent to take part in this research study and agree to allow my identifiable information to be used and shared as described above.

_____ _____ _____
Subject Date Time (optional)

Signature of Person Obtaining Consent:

Statement of Person Obtaining Consent

- I have explained the research to the study subject.
- I have answered all questions about this research study to the best of my ability.

Study Doctor or Person Obtaining Consent	Date	Time (optional)

Consent Form Version Date: Version 1 - 09/27/2021