

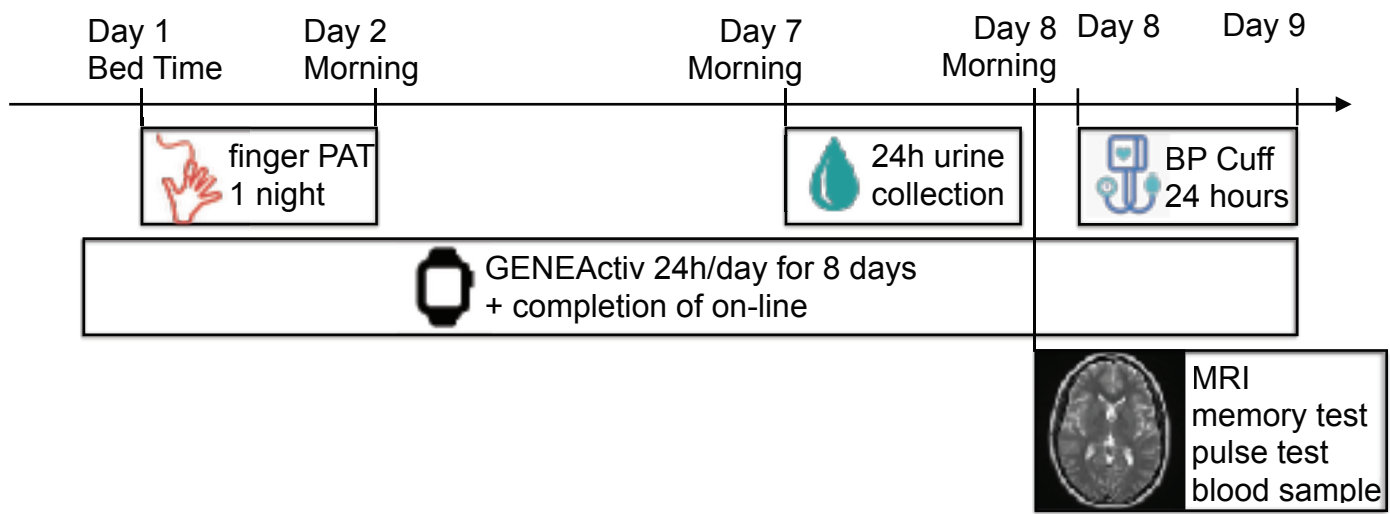
# Thank you very much for agreeing to participate in the Brain Changes in Sleep Apnea Study

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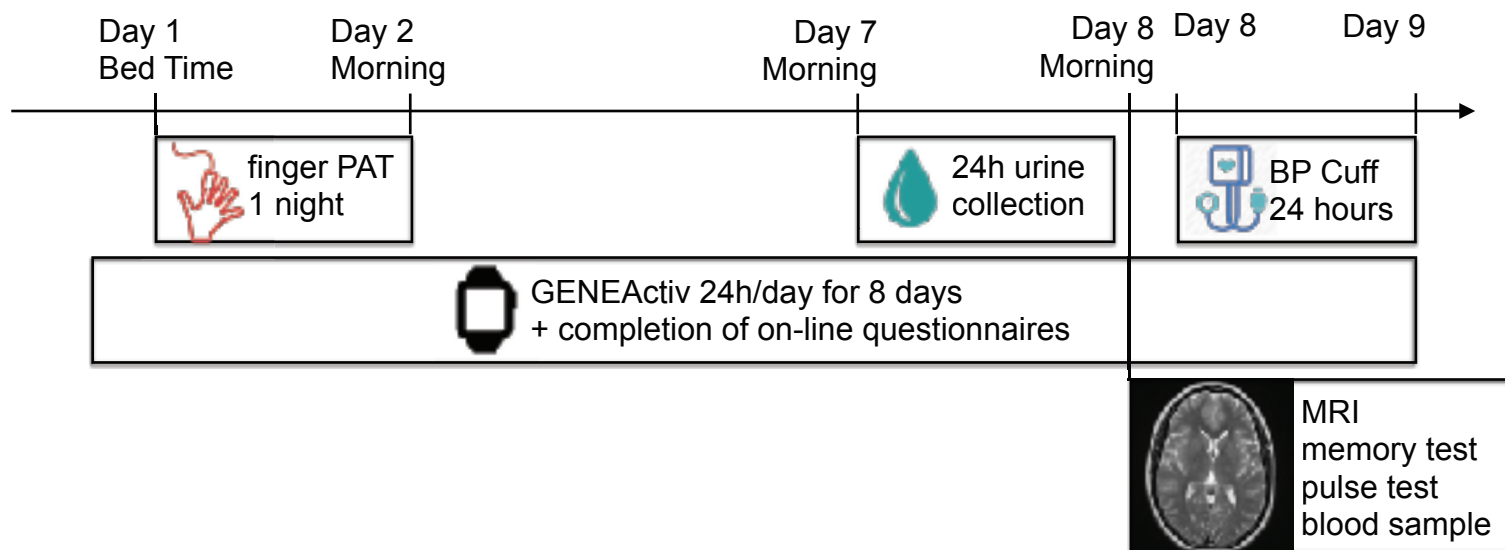
By participating in this study, you are playing a key role in helping us to better understand the impact of sleep apnea on brain function and brain diseases like stroke, dementia, and Alzheimer's disease. The results of this study may lead to new treatments to prevent or reverse the impact of sleep apnea on brain health.

If at any point during this study you have questions or concerns, please call or email us at 416-480-5143 or [sleepapneabrain@sunnybrook.ca](mailto:sleepapneabrain@sunnybrook.ca).

1. **Starting today**, wear the GENEActiv according to the instructions on the enclosed GENEActiv instruction sheet (page 4). The study coordinator will have helped you to put this on. This will be worn until the day after your MRI.
2. **Starting tonight**, wear the WatchPAT finger probe according to the instructions on the enclosed WatchPAT instruction sheet (page 3). Take it off tomorrow morning and set it aside. You will return the WatchPAT to Sunnybrook on the day of your MRI.
3. **Daily until the day after your MRI appointment**, complete the enclosed sleep diary.
4. **On any day (and at any time) before your MRI**, complete the online sleep and health questionnaire.
5. **On any morning before your MRI**, complete the online memory tests. If possible, please complete the memory tests within one hour of waking up.
6. **24 hours before your scheduled MRI**, start collecting all urine output in the provided container. This will be used to provide a measure of stress hormones. Do not eat after midnight.
7. **When you come in for your MRI appointment**, bring the WatchPAT, urine bottle, and sleep diary. In addition to the MRI, you will provide a blood sample, complete some memory tests, and some measurements of your pulse.
8. **Starting after the MRI**, wear the blood pressure monitor according to the instructions on the enclosed blood pressure monitor instruction sheet (page 5). The study coordinator will have helped you to put this on. You will wear this for the next 24 hours.
9. **24 hours after your MRI appointment**, remove the blood pressure cuff and GENEActiv. The study coordinator will provide instructions on how to return these devices to us.
10. **2-4 weeks after your MRI appointment**, we will mail you a summary of the results of your home testing.



Participant ID: \_\_\_\_\_



Day 1 (Start of GENEActiv recording): \_\_\_\_\_

Day 9 (End of GENEActiv recording): \_\_\_\_\_

Night 1 before bed (Start WatchPAT): \_\_\_\_\_

After sleep of Night 1 (End WatchPAT): \_\_\_\_\_

Day 7 at \_\_\_\_\_ (Start of urine collection): \_\_\_\_\_

Day 8 at \_\_\_\_\_ (End of urine collection): \_\_\_\_\_

Day 8 (Testing at Sunnybrook): \_\_\_\_\_

**\*PLEASE RETURN THE WATCHPAT AND URINE BOTTLE WHEN YOU COME TO SUNNYBROOK FOR TESTING\***

Day 8 at \_\_\_\_\_ (Start blood pressure recording): \_\_\_\_\_

Day 9 at \_\_\_\_\_ (End blood pressure recording): \_\_\_\_\_

**\*Upon completion of the 24-hour blood pressure recording, please return the blood pressure cuff and GENEActiv to Sunnybrook. You can either return the equipment in person or mail it back to us\***

# WatchPAT Instructions

The WatchPAT is a medical device that measures your breathing and blood oxygen levels during the night. Please read these instructions carefully. You should wear the WatchPAT on the first night of your GENEActiv recording. An instructional video can be found at [www.sunnybrook.ca/research/bcsas](http://www.sunnybrook.ca/research/bcsas).

**Important:** Put on and activate the device just before going to bed for the night.  
Keep the device and sensors on even if you need to get up in the night.

**Problems?** Contact the study coordinator at 416-480-5143 or [sleepapneabrain@sunnybrook.ca](mailto:sleepapneabrain@sunnybrook.ca).



**1. Wear the WatchPAT.** Place the WatchPAT upside down on a flat surface, insert wrist, and close strap. Wear this just above the GENEActiv.



**2. Wear the Finger Probe.** Insert index finger until you feel the end. Be sure the tab marked "TOP" is above your nail.



**3. Activate the Finger Probe.** Detach and remove the tab while pressing the tip of the probe against a hard surface. You may feel a slight suction.



**4. Turn on the WatchPAT.** Just before you lie down to go to sleep, firmly press the ON/Enter centre button until the LCD display lights up. After a short delay, the LCD will display "Good Night! Recording..."



**5. During the Night.** Do not remove the finger probe until you are done sleeping for the night. Once the probe is removed, it cannot be reattached.



**6. When you Wake Up.** Remove the probe, take off the wrist strap, and place all parts in the carrying case. The WatchPAT will turn off automatically. Bring this with you to your MRI appointment.

# GENEActiv Instructions

The GENEActiv is a medical device that records motion and light. It provides information about your general activity, sleep schedule, naps, wake episodes, as well as information about your sleep quantity and quality. It is not a GPS tracking device, it does not record heart rate, and it does not provide information about the specific activity you are engaging in at any given time. Please read these instructions carefully.

**Problems?** Contact the coordinator at 416-480-5143 or [sleepapneabrain@sunnybrook.ca](mailto:sleepapneabrain@sunnybrook.ca).



**Wear the GENEActiv on your dominant wrist** as soon as you receive it. If you are right-handed this is your right wrist.



**Keep it on 24 hours a day** until the day after your MRI, even when you are sleeping. We will help you remove the GENEActiv before your MRI.



**The GENEActiv is water resistant.** You can wear it when you shower or bathe for up to 30 minutes. **Remove it only to swim.**



**Press and hold the marker button\* for 3 seconds** whenever you lie down with the intention to sleep, or whenever you get up from bed.



**If you must remove the GENEActiv for any reason,** please record the date and time you take the GENEActiv off and put it back on on the provided sleep diary.



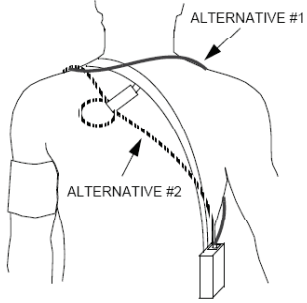





**If the GENEActiv gets dirty,** it may be cleaned with a soft cloth moistened in detergent and water to remove dirt and stains. Do not use abrasives or alcohol as they may damage the device.

\*Upon completion of the 24-hour blood pressure recording, please return the GENEActiv and blood pressure monitor to Sunnybrook. You can either return the equipment in person or mail it back to us\*

# Ambulatory Blood Pressure Monitor Instructions

The ambulatory blood pressure monitor will measure your blood pressure intermittently for 24 hours including during sleep. This is done because blood pressure changes throughout the day, and sleep apnea can cause abnormally high blood pressure at night. Read these instructions carefully. An instructional video can be found at [www.sunnybrook.ca/research/bcsas](http://www.sunnybrook.ca/research/bcsas).

**Problems?** Contact the coordinator at 416-480-5143 or [sleepapneabrain@sunnybrook.ca](mailto:sleepapneabrain@sunnybrook.ca).

 <p><b>1. When you receive the device...</b> a) Take off your shirt. b) Strap the monitor to your hip opposite your non-dominant arm using the strap and belt c) Wear the cuff on your non-dominant arm, thread the tubing around the back of the your neck and down the front of your body, and connect it to the monitor. You may wear loose clothing over the top. Turn the device on.</p>	 <p><b>2. Wear the device continuously for 24 hours.</b> The device will take measurements every 30 minutes for 24 hours. You will know a recording is about to be taken when the arm cuff starts to inflate automatically. <b>After 24 hours, take off the blood pressure monitor (and GENEActiv watch).</b></p>	 <p><b>3. While a measurement is being taken,</b> keep a relaxed arm and try not to talk. During the daytime, the device will “beep” twice when it is about to take a measurement. A single beep will follow each successful recording. If the measurement is not successful, the machine will try again in 2 minutes. This time, the recorder will give a 4-beep signal and will inflate to a higher level.</p>
 <p><b>4. If you are driving when the cuff inflates,</b> ignore it until you can pull over safely. If the monitor does not get a successful reading, it will try again in 2 minutes.</p>	 <p><b>5. When sleeping,</b> put the monitor under your pillow or on a bedside table. Keep the tubing intact, but remove it from around your neck. During the nighttime, the monitor will NOT beep.</p>	 <p><b>6. Do not bathe or shower</b> during the 24 hours that you have the blood pressure monitor on. Do not get the monitor wet. Also, do not drop or shake the recorder.</p>

\*Upon completion of the 24-hour blood pressure recording, please return the blood pressure monitor and GENEActiv to Sunnybrook. You can either return the equipment in person or mail it back to us\*



## Instructions for 24-hour Urine Collection

1. On the day before your MRI, you **MUST** start your 24-hour urine collection in the morning. Empty your bladder when you get up in the morning and **DISCARD THIS URINE** (ie. do NOT put it in the urine collection bottle). **Record the date and time that you discarded your first urine of the day. Record this on the sheet below to indicate the beginning of your 24-hour urine collection.**
2. After you discard your first urine of the day, collect in the bottle **ALL URINE** you pass today and tonight.
3. On the morning of your MRI, empty your bladder at the **SAME HOUR** that you discarded your urine on the previous day, and add all this urine to the full bottle. **Record the date and time of this last collection on the sheet below to indicate the end of your 24-hour urine collection.**
4. Bring the bottle and this sheet to Sunnybrook when you come in for your MRI.

**The urine collection bottle must be kept refrigerated during the 24 hours and until the time it is returned to Sunnybrook.**

**DO NOT void directly into 24-hour urine bottle as the container may have a preservative added which may be corrosive.** Instead, void into a clean container and then carefully pour the urine into the collection bottle. In case the preservative comes in contact with skin, flush with plenty of water.

**Do not drink excessive quantities of fluids or take non-prescribed drugs during the 24-hour collection period.**

**Please restrict caffeine, nicotine and alcohol for the 24 hours prior to and during your 24-hour urine collection. Discontinue Methyldopa (Aldomet) for at least 5 days prior to collection.**

**Label the 24-hour urine container with your full name and date of birth.**

**Below, indicate the date and time the collection was started and date and time it was finished.**

Date Started:	(yyyy/mm/dd)	Time Started:	am pm
Date Finished:	(yyyy/mm/dd)	Time Finished:	am pm

If you have any questions/concerns, please call/email the research coordinator at 416-480-5143 or [sleepapneabrain@sunnybrook.ca](mailto:sleepapneabrain@sunnybrook.ca).