DBIC Standard Operating Procedures for Garrett PD 6500i walk-through Metal Detector

1. Information for DBIC users:

**Safety Training.** As part of your fMRI safety and operator training you learned how to screen subjects for any metal objects that may be present on or within their body before they can enter the scanner room. The Garrett walk-through metal detector located in the waiting room serves only as an extra precaution to alert users of any metal that may may enter the scanner room and cause a hazard near the magnetic field. **Importantly: The Garrett metal detector is not meant to take the place of the required screening procedures and protocols included in the safety training course.**

For information DBIC’s safety training policies and procedures:

https://www.dartmouth.edu/dbic/policies/safetytraining.html

**Subject Screening.** Before allowing a subject to enter the scanner room, users must complete the screening procedures and protocols outlined in the safety training. Procedures include: conducting a thorough subject interview, having the subject complete and sign of the DBIC Safety Screening Sheet, and having the subject check their clothing and body to remove any metal. A copy of the DBIC subject screening protocol and the safety screening sheet are included in this manual on starting on page 3.

**Operating Protocol for Metal Detector.** After completing the subject screening protocol and determining that the subject is cleared to scan, have the subject walk through the metal detector. The subject should have their hands by
their sides and must not touch the sides of the metal detector. If the alarm goes o"
when the subject passes through the metal detector, have them double check for and
remove any metal items in their pockets or on their person. As a final safety check,
please use the Garrett wand metal detector located in the drawer by the sink in the
waiting room to locate the metal object.

**DBIC users are not authorized to change the settings on the metal detector. The**
metal detector should be on and working 24 hours a day 7 days a week. Do not
attempt to turn o" or move the metal detector from its designated location. If the
metal detector is malfunctioning please contact Terry Sackett and he
troubleshoot the problem. Importantly: If the metal detector is not working for
any reason it is permissible to scan as long as all of the other subject screening
protocols are followed. If the metal detector is too sensitive and goes o"
whenever someone walks through even without any metal on their person—
which can happen if it gets moved or the settings get changed —use the Garrett
wand metal detector to screen the subject.

For help or other questions about the metal detector contact Terry Sackett:

Terry Sackett terry.j.sackett@dartmouth.edu Scan room: 6-0155, Office: 6-0178
Dartmouth Brain Imaging Center
3T MRI Subject Information and Safety Screening Sheet

Subject Name__________________________DartmouthID#________________
Birth Date__________Weight_________Height________
Subject Email___________________________Phone #________________
Gender___________________Ethnicity
Have you ever been a machinist, welder or metal worker?   Y    N
- If yes, did you wear safety glasses at all times?         Y    N
Have you ever had a piece of metal in your eyes?          Y    N
Do you have a pacemaker or pacemaker wires?              Y    N
Do you have an aneurysm clip?                           Y    N
Do you have a neurostimulator (tens-unit)?               Y    N
Do you have any shrapnel in your body?                   Y    N
Is there a chance you could be pregnant?                 Y    N
Are you claustrophobic?                                 Y    N
Are you wearing colored contacts?                        Y    N
Do you have dentures, braces or a non-removable retainer? Y    N
Are you wearing a skin patch (Nicotine, contraceptive, etc.)? Y    N
Do you have a hearing aid?                               Y    N
Have you had a fractured bone treated with metal rods, plates, or screws? Y    N
Have you had any major surgery?                          Y    N
- If yes, please describe______________________________

If ANY of the above are answered yes, the study should not be performed until it is reviewed by the imaging center technologist.

Subject cleared to be scanned by Terry Sackett RT(R)(CT)(MR):  Y    N
Investigator Initials:__________

DO NOT ENTER THE SCAN ROOM WITH ANY OF THESE ITEMS

<table>
<thead>
<tr>
<th>Items</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Patches (Nicotine, contraceptive, etc.)</td>
<td>Belts/Buckles</td>
</tr>
<tr>
<td>Credit/Bank Cards</td>
<td>Wallet/Money Clips</td>
</tr>
<tr>
<td>Pens/Pencils</td>
<td>Coins</td>
</tr>
<tr>
<td>Hairpins/Barrettes</td>
<td>Safety Pins</td>
</tr>
<tr>
<td>Jewelry/Piercings/Subcutaneous Accessories</td>
<td>Watch</td>
</tr>
<tr>
<td>Keys</td>
<td>Pocket Knife</td>
</tr>
<tr>
<td>Wigs/Hairpiece/Extensions</td>
<td>Eyeliner Tattoo</td>
</tr>
<tr>
<td>Underwire Bra</td>
<td>Magnetic nail polish</td>
</tr>
<tr>
<td>Clothing with silver or gold threading</td>
<td>Hair or skin products with iron oxide or glitter</td>
</tr>
<tr>
<td>(e.g. Lululemon silverescent)</td>
<td>Please inform the researcher of any tattoos</td>
</tr>
</tbody>
</table>

**** ALL VOLUNTEERS MUST WEAR HEARING PROTECTION DURING ALL SCANS ****

Subject Signature__________________________________________

Investigator Signature_______________________________________

Dartmouth Brain Imaging Center

9/10/21