

Safe Scanning Policy

For Studies on the OHBA 3T MRI Scanner



For scanning at OHBA the **minimum** number of people that must be in attendance:

Scan Type	Hours	Operator	Within Control Room	Pager holder
Category 0 Phantom Scanning	Working hours	Trained operator	-	-
	Extended hours and late evening	Trained operator	-	Within building
Category 1 Simple Scanning	Working hours	Trained operator	-	Within building
	Extended hours and late evening	Trained operator	1 Experienced Researcher	-
Category 1a Healthy Subjects	Working hours, extended hours and late evening	Trained operator	1 Experienced Researcher	-
Category 2 Vulnerable Subjects	Working hours or extended hours ONLY	Advanced operator	1 Specifically Trained Researcher	-
Category 3 High Risk	Working hours ONLY*	Radiographer	1 Researcher plus 1 Medic/Anaesthetist	-

Hours:

Working hours 08:00 – 18:00 Mon-Fri

Extended hours 06:00 – 08:00 Mon-Fri

18:00 – 20:00 Mon-Fri

08:00 – 20:00 Sat/Sun

Late Evening 20:00 – 22:00 Mon-Fri

*All Category 3 scans should be discussed with OHBA Director. Scanning out of hours may be permitted if appropriate cover is provided.

Scan Types:

Category 0 Phantom scanning.

Category 1 Simple scanning, with **no task fMRI** or other additional experimental manipulation, on healthy and non-vulnerable subjects.

Category 1a Task fMRI or other additional experimental manipulation on healthy and non-vulnerable subjects. A clinical event (e.g. cardiac arrest) is not expected and the subject population doesn't require special care.

Category 2 Vulnerable subjects (e.g. very young, elderly, epilepsy, stroke, reduced mobility) or low risk intervention (e.g. simultaneous tDCS, contrast, IV drugs that do not affect metabolism, gases) There is an increased risk of clinical event or the subject population requires special care.

Category 3 High Risk (IV drugs that affect metabolism, anaesthetics, acutely ill subjects). There is a specific risk of clinical event.

Operators:

Trained Operator:

An operator who has completed their operator training, including yearly updating emergency evacuation training, basic life support (BLS) or higher and their scanner operator driving test.

Advanced Operator:

An operator who has significant experience in scanning subjects, is competent to deal with an emergency situation, as determined by the senior OHBA staff, and has yearly updating of basic life support plus automatic defibrillation device (BLS+AED) or higher.

Radiographer: A trained radiographer who has yearly updating of basic life support plus automatic defibrillation device (BLS+AED) or higher.

Researchers:

Experienced Researcher:

A trained researcher who is competent to run their experiment. They should have had supervised experience of running MRI experiments and demonstrate safe working around the scanners. This does not include short term undergraduate or MSc project students. The OHBA Director will give clarification if in doubt.

Specifically Trained Researcher:

An experienced researcher who has specific training (medical or otherwise) in the intervention being used, or in dealing with subjects from that population group, as stated in the relevant ethics application.

Medic/Anaesthetist:

A currently practicing medic or anaesthetist with appropriate honorary or substantive clinical contract with an NHS Trust and trained in Advanced Life Support (ALS).

Pager holder:

When scanning a subject alone in the control room, or scanning a phantom during extended hours, the operator must give the pager (small two-way alarm system) to a competent person who will be within OHBA at all times. If the holder wishes to leave the building they must formally hand-over the pager to another similarly qualified/responsible person who will cover in their absence e.g. lunch break.

Subject populations	
Psychiatric patients (currently remitted or well controlled)	Category 1a
Elderly (fit and well)	Category 1a
Children under 16	Category 1a
Elderly (infirm)	Category 2
Children under 12	Category 2
Using mobility aids	Category 2
Epilepsy	Category 2
Stroke or TIA	Category 2
Psychiatric patients (currently unwell)	Category 2
Neurodegeneration (dementia/PD/MND)	Category 2
Severe visual impairment	Category 2
Acutely ill	Category 3
Decreased GCS	Category 3
Haemodynamically unstable	Category 3

Experimental manipulations	
Task related fMRI	Category 1a
Monitoring or recording from devices connected to subject	Category 1a
TMS/tDCS before scanning	Category 1a
IV drugs that don't affect consciousness	Category 2
Administration of gases	Category 2
TMS/tDCS during scanning	Category 2
MR contrast	Category 2
Pain device	Category 2
Laser	Category 2
CHEPS	Category 2
IV drugs that affect consciousness	Category 3
Anaesthetics	Category 3

