



MRI Service Requirements – AMRA® BCP Protocol

These service requirements pertain to the AMRA® BCP Scan, AMRA® MAS Scan and AMRA® Researcher BCP, including optional add-on organ specific analysis of liver fat, liver volume, spleen volume, pancreas fat and kidney composition. For other services such as whole-body muscle imaging, contact support@amramedical.com for relevant service requirements.

Image requirements

The MRI scan allows regional and global segmentation and quantification of muscle and fat tissue volumes for body composition measurement. The specific coil and sequence requirements are:

Body composition analysis – Fat, water, in-phase and opposed-phase Dixon images acquired using Lava-Flex (GE), mDixon (Philips) or Dixon-Vibe (Siemens) are required, using only the scanner's integrated body coil.

Liver fat analysis – it is preferable that the images are acquired using the vendor's liver application (IDEAL-IQ, mDixon-Quant or LiverLab/q-Dixon) ensuring fat fraction, fat, water and R2* images are reconstructed. If the vendor liver application is not available, an alternative method is used. Liver fat imaging requires a dedicated anterior and posterior surface coil.

Liver and spleen volume analysis – no additional requirements

Pancreas fat and kidney composition analysis –requires the vendor's liver application (IDEAL-IQ, mDixon-Quant or LiverLab/q-Dixon) ensuring fat fraction, fat, water and R2* images are reconstructed.

Additionally, all organ-specific analysis requires dedicated anterior and posterior surface coils (posterior coils normally being the integrated table coils).

Supported MRI Systems

Table 1 below specifies the minimum MRI system requirements. **Newer MRI systems than those listed below are considered supported.** All MR systems will undergo image quality verification at set up.

For specific questions on your system, please contact support@amramedical.com.

Table 1 – Supported scanner manufacturers, models and software versions (newer models and software versions are considered supported).

GE			
1.5T Systems	3T Systems	Upgraded Systems	Software
Sprint Champion Prime Victor Artist Voyager Explorer Creator Optima MR360 Discovery MR450 Optima MR450/w/GEM HDxt	Bolt Hero Premier Architect Pioneer PET/MR Discovery MR750w GEM Discovery MR750 HDxt	Artist Evo Premier Evo Artist Lift Explorer Lift Voyager Lift Premier Lift Architect Lift Discovery MR750 Lift	HD15 or newer
Philips			
1.5T Systems	3T Systems	Upgraded Systems	Software
BlueSeal SE/XE MR 5300 Ingenia Ambition X/S Ingenia Prodiva CX/CS Multiva Ingenia X/S Ingenia DS Ingenia Achieva Nova Achieva	MR 7700 Ingenia Elition X/S Ingenia CX Ingenia Achieva Nova Achieva	Ingenia Evolution Achieva 1.5T dStream Achieva 3.0T dStream	R5.4 or newer
Siemens			
1.5T Systems	3T Systems	Upgraded Systems	Software
Sola Altea Sempra Amira Aera Avanto	Cima.X Lumina Vida Prisma Spectra Skyra Verio Trio Biograph mMR	Sola Fit Avanto Fit Symphony TIM Vida Fit Prisma Fit Skyra Fit	B17 or newer
Not supported			
Mobile MRI systems (from all manufacturers)			