

UCL researchers help make cardiac MRI the global gold standard of heart disease care

A cardiac MRI is a special MRI that can take static and moving 3D pictures of the heart in much more detail than electrical mapping techniques, such as an ECG



Now, cardiologists, physicists, and computer scientists from UCLH BRC have further advanced cardiac MRI, enabling heart imaging in greater detail than ever before!

Using advanced computer systems for superior image capture, processing, and interpretation, the enhanced cardiac MRI can accurately measure



- Structure and function
- Biological changes leading to disease, such as deposition of abnormal proteins
- Muscular changes caused by inherited or lifestyle diseases
- Changes with age, athletic training, and pregnancy

This has made possible

- Earlier treatment that can prevent irreversible damage
- Improved diagnosis and treatment of common and rare conditions



- Discovery of unanticipated causes of disease
- Assessment of response to new drugs



Through the use of artificial intelligence, UCLH BRC advancements have also made cardiac MRI faster while maintaining enhanced detail in visualization



Reduces cost



Enables increased routine use, even in children and infants



Reduces physician burden



Further, in partnership with Barts Health Centre, the researchers have developed safety protocols to make cardiac MRI accessible to even patients with pacemakers



Via strategic links with industry partners (Siemens and Philips), these UCLH BRC technologies and protocols have been incorporated into 14 international clinical guidelines

This advanced cardiac MRI is revolutionizing patient care globally