



# Whole Body Composition Analyzers

## EchoMRI-AH is changing the “gold standard” for Whole Body Composition Analysis

In the world of Body Composition Analysis (BCA) for adult humans, dual energy x-ray absorptiometry (DEXA) has been considered to be the “gold standard” available on the market.

Today, Echo Medical Systems (EMS) is proud to announce a new benchmark to which all BCA instruments and techniques (including DEXA) will be compared to in the future: the **EchoMRI-AH™ – Magnetic Resonance based BCA for Adult Humans.**

EMS has been developing, manufacturing, and marketing NMR-MRI-CT based whole body composition and tissue characterization equipment for use by research laboratories, the pharmaceutical industry, hospitals, and other medical facilities for over 10 years. Echo’s class-defining EchoMRI™ technology is unique in that it has enabled low-cost, rapid, highly precise, in-vivo measurements of animals and infants without anesthesia or sedation. EMS is pleased to announce that the same technology that has been so successful in previous whole body composition analysis products, is now being applied to adult humans as well.



Recently, a 45-day, head-to-head study<sup>1</sup> was conducted on human subjects that saw each subject measured on DEXA, BOD POD, BIA, and the EchoMRI-AH™. The results from this study were remarkable. In terms of correlation alone, the data acquired via EchoMRI-AH™ was highly correlated ( $r^2 = 0.99$ ) to DEXA for both fat and lean mass. However, in terms of precision, the study showed that the EchoMRI™ methodology was far superior to any other method of body composition analysis available on the market today. The data from the EchoMRI-AH™ study revealed a precision of 0.5%, where as the closest competitor (DEXA) revealed a precision of 3.2%. The EchoMRI-AH™ demonstrated additional advantages as well:

- Precise patient placement and garment changing is unnecessary
- Scanning times are greatly reduced (average of 3-minutes per scan) which translates to maximum efficiency when studying large subject populations
- No ionizing radiation source involved
- Ability to identify much smaller changes in fat and lean mass over both short and long periods of time (making it ideal for short-term and longitudinal clinical trials)

To summarize, no other BCA system in the world can match the precision, safety, efficiency, and convenience of the EchoMRI-AH™. In recent years the EchoMRI™ methodology has become the “gold standard” for BCA in animals, thus substantially replacing DEXA technology-based systems. Today, the EchoMRI-AH™ system has made a significant step toward becoming the new ‘gold standard’ in the world of body composition analysis for adult humans.

<sup>1</sup> Ellis, KJ., Shypailo, RJ., Kovner, I., Taicher, GZ. (October 20-23, 2006) *Body composition analysis using quantitative magnetic resonance (QMR)*. NAASO 2006 Meeting, Boston, Massachusetts.