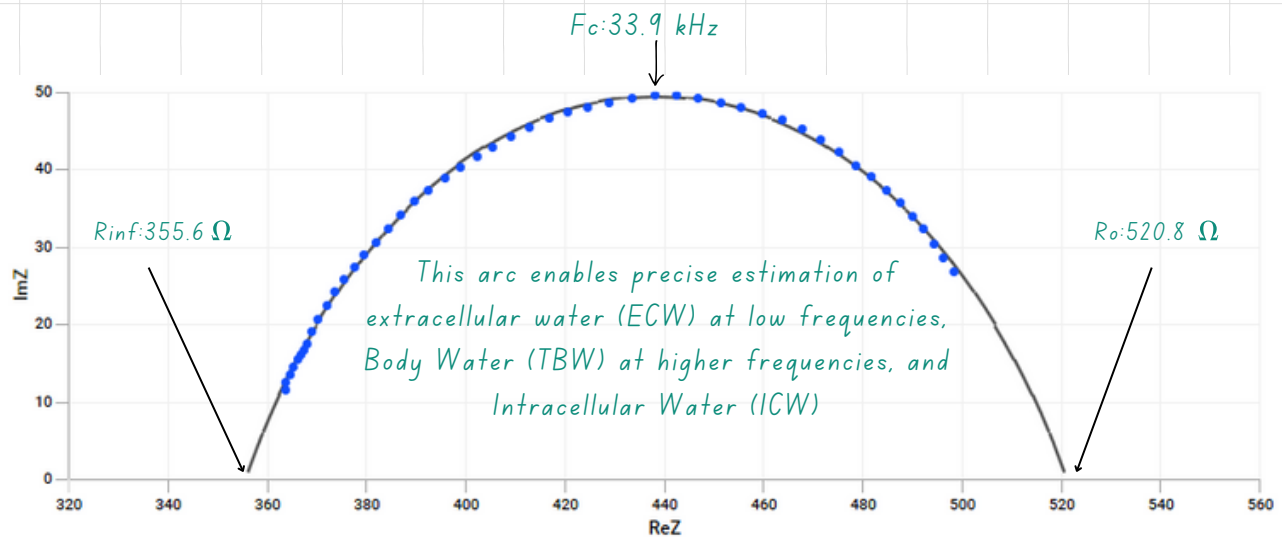


THE POWER OF THE COLE DIAGRAM

PRECISION IN FLUID COMPARTMENT ANALYSIS

What is it?

The Cole Diagram is a cornerstone of Bioimpedance Spectroscopy (BIS), offering a visual representation of a tissue's electrical impedance across a range of frequencies.



Bodystat's BIS leverages the Cole Diagram to deliver unmatched accuracy in assessing fluid compartments, making it indispensable for body composition analysis by enabling earlier detection of fluid shifts leading to improved patient outcomes.

BENEFITS OF THE MULTISCAN 5000 FOR FLUID COMPARTMENT ANALYSING



UNRIVALLED PRECISION

Accurately quantifies ECW, ICW, and TBW - surpassing the limitations of single- and multi-frequency systems.



CLINICAL VERSATILITY

Ideal for monitoring fluid shifts in dialysis, surgery, lymphoedema, and malnutrition, providing actionable insights for patient care.



NON-INVASIVE & RAPID

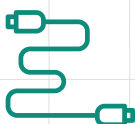
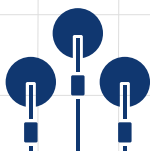
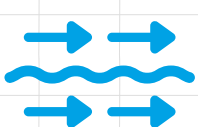
Delivers results in seconds, enhancing workflow efficiency in research and clinical settings.



ROBUST REPRODUCIBILITY

Advanced compensation algorithms ensure consistent measurements, unaffected by stray capacitance or electrode variability.

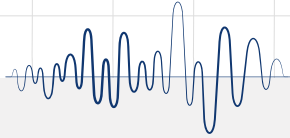
OVERCOMING STRAY CAPACITANCE: BODYSTATS BREAKTHROUGH



An unwanted electrical effect that distorts impedance measurements, particularly at high frequencies.

Parasitic capacitance - caused by cables, electrodes, or surface contact - can distort the Cole Diagram and compromise fluid compartment estimates.

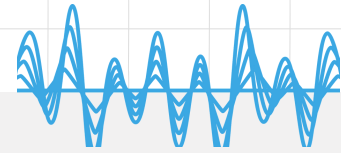
WHY BODYSTAT BIS OUTSHINES SINGLE AND MULTI-FREQUENCY ANALYSERS



SINGLE-FREQUENCY ANALYSERS

(E.G., 50 KHZ)

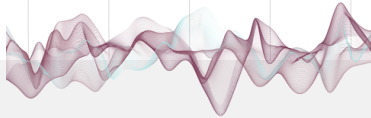
Limited to estimating TBW using empirical equations, these devices lack the ability to differentiate ECW and ICW or account for tissue heterogeneity. Their reliance on population-specific formulas reduces accuracy in diverse or clinical populations.



MULTI-FREQUENCY ANALYSERS

(MFBIA)

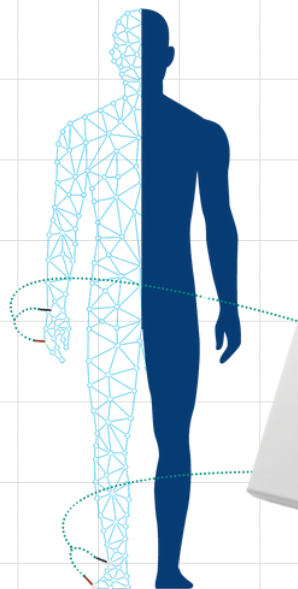
While an improvement, MF-BIA typically measures at a few discrete frequencies (e.g., 5, 50, 100, 200 kHz), providing only a snapshot of impedance. This limits their ability to fully characterize the Cole Diagram or accurately estimate ICW and ECW in complex cases, relying on outdated regression equations.



BODYSTAT BIS – MULTISCAN 5000

By measuring across **50 frequencies (5–1000 kHz)**, Bodystat constructs a comprehensive Cole Diagram, enabling **precise modelling of fluid compartments** using the Cole-Cole model and Hanai mixture theory. This approach captures the full impedance spectrum, offering **superior accuracy for ECW, ICW, and TBW**, even in challenging conditions like obesity or oedema.

The Multiscan 5000, sets a high standard in bioimpedance analysis. By harnessing the full potential of the Cole Diagram and overcoming stray capacitance through innovative compensation algorithms, Bodystat can deliver unparalleled accuracy and reliability. This sophisticated approach distinguishes Bodystat from competitors, offering researchers and clinicians a tool that seamlessly integrates precision, ease of use, and robust data for fluid compartment analysis.



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