



“Although each practitioner’s office has their own routine of data acquisition, BIA analysis can usually be combined with the assessment of blood pressure, heart rate and weight measurements without any trouble.”



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Lee Trotter, D.O.
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Objective: Managing Postoperative Complications and Nutritional Deficiencies in order to Improve Outcomes of Bariatric Surgery

Bariatric surgery originated in the 1950’s with the advent of the jejunioleal bypass. If weight was the only measurement of success, this procedure was quite effective in weight reduction. However, it was soon recognized that a significant number of health issues and severe malnutrition developed resulting in complete abandonment of this surgical procedure. Since the 1950’s there have been significant technological improvements and innovations in both surgery and post operative monitoring that allow us to more accurately monitor and direct patients in healthy weight loss.

An accurate depiction of body composition and in particular fat-free mass is now readily available and easily performed in the office setting within just a few minutes.

Bioelectrical impedance analysis (BIA), often referred to as “body composition analysis”, is technology that was originally developed and first received FDA clearance in the early 1980’s. Today, RJL Systems remains the gold standard of BIA instrumentation.

BIA is a clinical study that measures the bioelectrical impedance of the human body and then employs a complex set of mathematical equations to accurately depict total body fat, fat-free mass, and total body water. The clinical utilization of body composition measurement is excitingly simple. Of all the analyzers clinically available, RJL Systems, having pioneered this technology, provides the most user-friendly equipment available.

Solution: Quantum III BIA System

The RJL Systems bioelectrical impedance analyzer (BIA) is a research grade instrument that will accurately provide a 3-compartment body composition report that can be provided in graph form to your patient.

Results: Improved outcomes

Maintenance of lean body mass is important and has been linked to improved wound healing, a reduction in postoperative wound infections, reduction in hair loss, and maintenance of metabolic rate. With the use of BIA, fat-free mass (lean body mass) can be quickly determined in the office. This information is then used to provide valuable direction to the patient on nutritional intake. As a result, lean mass can be maintained and maximized.

This objective information serves as a visually depiction of how a patient is progressing and what type of dietary changes are needed. A copy of the study result is typically given to the patient as a visual reminder that “*what they do affects how they do*”.

The use of BIA can help establish proper nutritional habits early on during the rapid weight loss phase. As a patient loses weight, it is imperative that the type of weight being lost is identified.

It is suggested that BIA analysis be performed at each office visit and that its use be considered one of the bariatric “vital signs”. With the body composition analysis results displayed in a simple to read (and interpret) graph, appropriate nutritional guidance can be given based on objective information.

Once patients recognize the precise insight body composition has on their dietary habits, it is not unusual for the practitioner to feel like their patients priest as they often start confessing all their dietary “sins”. Early identification of poor and counterproductive eating habits will allow dietary intervention and the establishment of a more appropriate life style.