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## Body composition analysis of undergraduate students using bioelectrical impedance analysis method and their counseling on diet and lifestyle

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Present paper deals with body composition analysis of undergraduate students using bioelectrical impedance analysis method and their counseling on diet and lifestyle. Bioelectrical impedance analysis method involves determination of body weight, body fat percentage, segmental subcutaneous fat percentage (whole body, trunk, arms and legs), visceral fat percentage, segmental skeletal muscle percentage (whole body, trunk, arms and legs), resting metabolism, body mass index and body age. Results are interpreted in terms of ideal weight, overweight, underweight, period required for weight loss/gain at the rate of 1.5 kg per month, period required for weight maintenance, fat %, subcutaneous fat % (Trunk), visceral fat %, skeletal muscle % (whole body), RM, BMI, body age. It also highlights correct weight reduction and instructions for better health improvement and weight loss, weight gain and weight maintenance program. For ideal weight management and for a more accurate and precise body composition analysis full body sensing technology Karada Scan body composition monitor HBF-375 is used. Karada Scan measures body resistance by using weak current flowing through both hands and both feet (Bioelectrical Impedance/Biological Resistance method). Tissues with more water content in human body tend to conduct electricity (such as muscle and vein) easily. Fat tissue almost conducts no electricity. The body feature is used to calculate percentage of fat tissue and non fat tissue. Current flowing through human body is very weak (50 KHz, 500  $\mu$ A), which is not stimulant and is very safe to human body. In order to obtain body fat and other data from resistance between both hands and both feet, the five items, i.e., resistance value, height, weight, age and gender are required, which are obtained in accordance with basic human data collected by the company independently. There is little scope for technician error as such but factors such as eating, drinking and exercising must be controlled since hydration level is an important source of error in determining the flow of the electric current to estimate body fat. It is important to know our biological age. If we know where the problems exist, we can initiate the lifestyle modifications necessary to improve our health and increase our vitality. Maintaining an ideal weight can help prevent obesity or weight loss and other diseases and lead a longer life. We should build up non-fat physique by increasing skeletal muscle and improving resting metabolism. Complementing exercise along with a proper diet is the key to a healthy lifestyle. In today's world, exercising routine is regarded imperfect without vital elements called Bodybuilding supplements. They act as a fuel for our body and boost sporting performance. Herbalife is a world leader in the wellness industry. Their products do detoxification and cleansing of body systems from the inside, weight management, supplementation, anti-aging and prevent future diseases. Among these are Aloe Plus Tablet, Afresh, Cell-U-Loss Tablet, Personalized Protein Powder, Nutritional Shake Mix, Multivitamin Mineral and Herbal Tablet, Cell Activator Tablet, Activated Fiber Tablet for better weight management.

### Biography

Swaroop Rani N Gupta has completed her PhD in Chemistry from Nagpur University, Maharashtra, India in 1993. She is an Associate Professor in the Department of Chemistry, Brijlal Biyani Science College, India. She has published more than 20 papers in reputed international journals.

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