

## Title: Plasma Magnesium Zinc, Copper And Selenium Concentrations In Obese Patients Before And After Bariatric Surgery

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Obesity enhances the risk of type-2 diabetes, cardiovascular disease and inflammatory conditions and leads to metal dyshomeostasis, which contributes to the negative health aspects associated with the disease. In severe cases, bariatric surgery can enable sustained weight loss and improvement in health. Here, magnesium, zinc, copper and selenium concentrations were examined in 24 obese patients (7 males and 17 females) before and 9-months after undergoing Roux-en-Y gastric bypass surgery. All patients lost weight over this period, with the mean BMI reducing from  $51.2 \pm 7.1$  kg/m<sup>2</sup> to  $37.2 \pm 5.5$  kg/m<sup>2</sup>. Moreover, whole-blood glycosylated haemoglobin (HbA1c), as a marker of average glycaemia, was also measured and a correlative analysis of this parameter with metal concentrations performed. Significant alterations in the plasma concentrations of magnesium, zinc (both increased by 13.2% and 25.2% respectively) and copper (decreased by 7.9%) were observed over this period (plasma selenium concentration was unchanged), with BMI values correlating with plasma magnesium ( $p=0.004$ ) and zinc ( $p=0.022$ ) concentrations. At 9 months post-surgery, an increase in mean zinc/copper ratio was observed ( $0.86 \pm 0.29$  compared to  $0.63 \pm 0.14$  pre-surgery). Comparison of whole-blood HbA1c concentrations pre- and post-surgery revealed a reduction from  $6.50 \pm 1.28\%$  pre-surgery to  $5.51 \pm 0.49\%$  post-surgery. Differences in plasma HbA1c and magnesium pre- and post-surgery correlated significantly, as did HbA1c and magnesium levels when pre- and post-surgery values were analysed together. Collectively, this

work reveals that bariatric surgery, in conjunction with lifestyle/dietary changes, lead to improvements in the nutritional status

### Biography

Dr. Alan J. Stewart is a Reader in Molecular Medicine at the University of St Andrews. His research is focused upon how metal ions are handled in the body and the roles they play in regulating medically/physiologically relevant processes. Collectively, it provides detailed and reliable data relating to the transport and speciation of metal ions (particularly Zn<sup>2+</sup>) in the circulation and new insights into their cellular functions and role in disease states. To date his work has attracted grant funding from UK Research Councils (Biological and Biotechnological Sciences Research Council (BBSRC)), British Heart Foundation, Fight for Sight and The Leverhulme Trust. He has published >70 peer-reviewed publications, many in world class and field-leading journals. He is currently a member of the BBSRC Pool of Experts and sits on the Editorial Boards of the journals, Scientific Reports, Frontiers in Endocrinology, Nutrients and BioMetals.

## The Role of Lifestyle Behavior Change in Managing CVD & Obesity

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Other than activity and exercise, lifestyle practices such as healthy nutrition and not smoking, well established for preventing and managing lifestyle-related some diseases (i.e., heart disease, cancer, hypertension, stroke, obstructive lung disease, diabetes, and obesity) , are less emphasized in the traditional medical treatment guidelines for addressing chronic disease such as CVD. & Obesity This review examines the relationships between health & lifestyle behaviors, with special reference to the physical activity, and their clinical & research implications. .

### Biography

Amani Kamal is splashiest in nutrition science and policy with the combination of public health from Tufts University- Boston USA after her study of nutrition science in King Faisal University. She joined college of Nature Sciences and Public Health at Zayed University in 2014 until 1-2020, and she is a member of UAE health authority Nutrition task force where she directed her role to nutrition policy and CVD preventions'. This led to the development of important regulations and guidelines in weary nutrition program and school nutrition in 2011 until 2019. She was leading nutrition department and community nutrition education projects from 2003. And she had an affiliation with the emirate strategic research centre. Now she works as freelancer in education and research, and in 2020 she created with some talented volunteers, students and fresh graduates an education accounts in social media called @mansa.waay

## Title: Taking a Closer Look at Obesity Rates of Children Both Pre and Post the Covid 19 Pandemic

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According to the World Health Organization (2022), worldwide obesity has nearly tripled since 1975, at least 2.8 million people die each year as a result of being overweight or obese, and an estimated 35.8 million (2.3%) of global Disability-adjusted life years (DALYs) are caused by overweight or obesity. 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese. Most of the world's population lives in countries where overweight and obesity kills more people than underweight.

The purpose of this study was to examine American inpatient pediatric patients using the Kids' Inpatient Database (KID), Healthcare Cost and Utilization Project (HCUP), and the Agency for Healthcare Research and Quality (AHRQ, 2019; 2021), prior to, and after the beginning of the current COVID 19 pandemic, using a large national random sample (N = 801,499), which will included girls (n = 410,528) and boys (n = 390,971) between the ages of 10 to 18. This study sought to determine if the factors of household income (HI), healthcare quality (HQ), ethnicity (ETHN), and gender (GEN), are significantly associated with children's BMI status in America.

The Pearson Chi Square test was applied to measure for significant variable associations in this research study in addition to the application of the Cramer's V analysis to examine for strength of variable associations. The results found a statistically significant association ( $p < .05$ ) between BMI and HI. A statistically significant association was found between BMI and GEN and a

statistically significant association was also found between BMI and HQ. The outcome of this children's research study provides support for more improved efforts to both develop and apply effective strategies to promote positive healthy lifestyles in children's populations.

**Keywords:** \* Children \* Obesity \* Ethnicity \* COVID \* BMI.

### Biography

Damien Byas is a PhD holder and an Epidemiologist and Professor of Public Health at American Public Health Association. He is an International Public Health Delegate and President of North American Scientific Committee on cardiovascular health.

## Effect of Sleeve Gastrectomy on Metabolic Status in type 2 Obese Diabetics

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**Background:** Limited data are available about evaluation of the effects of sleeve gastrectomy on the glycaemic control on diabetes mellitus. The objective of this study is to evaluate the effectiveness of sleeve gastrectomy in improving the control of glycaemic status in obese diabetic patients

**Patients and methods:** This is retrospective cross sectional study to review the maintained data base collected between May 2018 to April 2021 in department of laparoscopic surgery in Farwaniya hospital-Kuwait.

A total 120 patients with diabetes mellitus who had undergone laparoscopic sleeve gastrectomy were studied. at 3 months and 6 months of follow up visits, collected data about variation in Body Mass Index (BMI). And glycosylated haemoglobin (HbA1c) and fasting blood glucose were analysed.

**Results:** Of the 120 diabetic patients with  $\geq 6$  months post-operative follow up 72 diabetic patients (60%) are still taking medications for diabetes mellitus and 48 diabetic patients (40%) are resolved at 3 months and 6 months of follow up. HbA1c has decreased from  $9.22 \pm 1.36$  (n=18) preoperatively to  $6.02 \pm 0.22$  after 3 months of surgery and 30 diabetic patients, HbA1c become  $5.88 \pm 0.22$  after 6 months

Body Mass Index (BMI) has decreased from  $47.43 \pm 11.33$  kg/m<sup>2</sup> in the sample of the study (120 diabetic patients) preoperatively to  $37.82 \pm 6.80$  at 3 months and to  $33.25 \pm 3.12$  Kg/m<sup>2</sup> after 6 months of surgery

Patients with short duration of diabetes less than 5 years have had better weight loss after surgery and achieved greater resolution rates (euglycemic state).

**Conclusion:** Sleeve gastrectomy has improved the glycaemic control in obese diabetic patients in the form of improvement and resolution and also succeeded in reduction of the body weight in the sample of the study

### Biography

Professor Dr Ibrahim El- Bayoumy holds bachelor of medicine and surgery (Tanta faculty of medicine-Egypt, 1989), then he earned his master degree in public health, preventive and social medicine (Tanta faculty of medicine-Egypt 1996), and MD, PhD in public health, preventive and social medicine 2003 from Tanta faculty of medicine-Egypt and McGill faculty of medicine –Montreal -Canada in division of clinical epidemiology in Royal Victoria hospital through double channel system as scholarship from ministry of education-Egypt. He is Full professor of public health and community medicine in Tanta faculty of medicine-Egypt since November 2016. Now he is working in ministry of health in Kuwait as consultant of public health and preventive medicine. He has obtained post-graduate Master degree in diabetes care and education-Dundee faculty of medicine-Scotland –UK October 2015. He was invited speaker in many international conferences in China, South Korea, Japan, Hong Kong, Kuwait about diabetes and obesity.