# **BANT** Blood Sugar Dysregulation



FASTING BLOOD GLUCOSE AT ADMISSION IS AN INDEPENDENT PREDICTOR FOR 28-DAY MORTALITY IN PATIENTS WITH COVID-19 WITHOUT PREVIOUS DIAGNOSIS OF DIABETES: A MULTI-CENTRE RETROSPECTIVE STUDY.

Wang, S, Ma, P, Zhang, S, Song, S, Wang, Z, Ma, Y, Xu, J, Wu, F, Duan, L, Yin, Z, et al Diabetologia. 2020;63(10):2102-2111

Existing research shows that Hyperglycaemia was a risk factor for mortality from severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), and is an independent risk factor for lower respiratory tract infection and poor prognosis. The aim of this retrospective study of 605 patients without previously diagnosed diabetes was to examine the association between fasting blood glucose (FBG) on admission and the 28-day in hospital mortality of COVID-19 patients.

Patients with a FBG level of 7.0mmol/l or over had more than double the risk of dying than those with a level of 6.0mmol/l or less. Other risk factors for mortality included age, being male, and severity of pneumonia at admission. Compared with patients whose FBG was 6.0mmol/l or lower at admission, patients with FBG of 7.0 mmol/l and above had a 3.99 times higher risk of in-hospital complications, whilst those with FBG of 6.1–6.9 mmol/l had a 2.61 times higher risk of complications. The authors conclude that glycaemic testing and control are important to all COVID-19 patients even where they have no pre-existing diabetes.



### VEGETARIAN DIETS AND RISK OF HOSPITALISATION OR DEATH WITH DIABETES IN BRITISH ADULTS: RESULTS FROM THE EPIC-OXFORD STUDY.

Papier, K, Appleby, PN, Fensom, GK, Knuppel, A, Perez-Cornago, A, Schmidt, JA, Tong, TYN, Key, TJ Nutrition & diabetes. 2019;9(1):7

The identification of modifiable risk factors is vital for the reduction of the growing diabetes epidemic. Diet is one such lifestyle factor that might play a key role in the prevention of diabetes. The aim of the study was to investigate the association between vegetarianism and diabetes in a large, population-based study of British adults.

The study is a prospective study of vegetarianism and diabetes risk in a cohort of 45,314 participants. Results indicate that the low meat eaters, fish eaters and vegetarians had a lower risk of developing diabetes compared to regular meat eaters. Authors conclude that people consuming a low or meat-free diet had a lower risk of hospitalisation or death with diabetes.



#### DIETARY GLYCEMIC INDEX AND LOAD AND THE

# RISK OF TYPE 2 DIABETES: ASSESSMENT OF CAUSAL RELATIONS.

Livesey, G, Taylor, R, Livesey, HF, Buyken, AE, Jenkins, DJA, Augustin, LSA, Sievenpiper, JL, Barclay, AW, Liu, S, Wolever, TMS, et al Nutrients.2019;11(6)

It is generally accepted that certain diet and lifestyle choices contribute to a person's risk of developing type 2 diabetes (T2D). In this meta-analysis, researchers set out to review previous studies and assess whether there is any evidence that the amount and type of carbohydrate (measured by Glycaemic Index (GI) and Glycaemic Load (GL)) in a person's diet has a direct influence on their risk of developing T2D.

The authors concluded with a high level of confidence that eating high GI and GL foods can lead to a higher risk of developing T2D. They suggest that nutrition advice that favours low GI and GL foods could produce significant cost savings for public healthcare.





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## BENEFICIAL EFFECTS OF THE RESMENA DIETARY PATTERN ON OXIDATIVE STRESS IN PATIENTS SUFFERING FROM METABOLIC SYNDROME WITH HYPERGLYCEMIA ARE ASSOCIATED TO DIETARY TAC AND FRUIT CONSUMPTION.

Rocio de la Iglesia, Patricia Lopez-Legarrea, Paloma Celada, Francisco J Sánchez-Muniz, J Alfredo Martinez, M Angeles Zulet

International journal of molecular sciences. 2013;(4):6903-19

Hyperglycemia and oxidative stress are conditions directly related to the metabolic syndrome (MetS). This study aimed to evaluate the effectiveness of a new weight-loss dietary pattern on improving the oxidative stress status on patients suffering MetS with hyperglycemia. Seventy-nine volunteers were randomly assigned to two low-calorie diets (-30% Energy): the control diet based on the American Health Association criteria and the RESMENA diet based on a different macronutrient distribution (30% proteins, 30% lipids, 40% carbohydrates), which was characterised by an increase in meal frequency (7-times/day), low glycemic load, high antioxidant capacity (TAC) and high n-3 fatty acids content.

The RESMENA diet reduced the fat mass and demonstrated more effectiveness on improving general oxidative stres. LDL values were associated with dietary TAC and fruit consumption and with changes on body mass index (BMI), waist circumference, fat mass and triacilglyceride (TG) levels.



