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Nutrition, insulin resistance and dysfunctional adipose tissue determine the different components of metabolic syndrome

Juan Antonio Paniagua

Abstract

Obesity is an excessive accumulation of body fat that may be harmful to health. Today, obesity is a major public health problem, affecting in greater or lesser proportion all demographic groups. Obesity is estimated by body mass index (BMI) in a clinical setting, but BMI reports neither body composition nor the location of excess body fat. Deaths from cardiovascular diseases, cancer and diabetes accounted for ~ 65% of all deaths, and adiposity and mainly abdominal adiposity are associated with all these disorders. Adipose tissue could expand to inflexibility levels. Then, adiposity is associated with a state of low-grade chronic inflammation, with increased TNF- α and IL-6 release, which interfere with adipose cell differentiation, and the action pattern of adiponectin and leptin until the adipose tissue begins to be dysfunctional. In this state the subject presents insulin resistance (IR) and hyperinsulinemia, probably the first step of a dysfunctional metabolic system. Subsequent to central obesity, insulin resistance, hyperglycemia, hypertriglyceridemia, hypoalphalipoproteinemia, hypertension and fatty liver are observed in the so-called Metabolic Syndrome.

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Role of obesity-associated dysfunctional adipose tissue in ...

www.sciencedirect.com/science/article/.../S0005272810007620 ▾ [翻译此页](#)

作者: PL Prieto-Hontoria - 2011 - 被引用次数: 78 - [相关文章](#)

Obesity-associated dysfunctional adipose tissue plays a role in cancer. ... Dietary bioactive food components may prevent adipose tissue failure and cancer. ... to insulin and leptin resistance and a shift to dysfunctional adipose tissue. ... in view of the frequent co-existence of other features of the metabolic syndrome; thus, ...

Metabolic Syndrome and Insulin Resistance: Underlying ...

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作者: CK Roberts - 2013 - 被引用次数: 66 - [相关文章](#)

The risk factors included in the syndrome were insulin resistance, defined as the ... In addition, inflamed adipose tissue, characterized by increased monocyte ... adopted by different organizations to identify individuals with the syndrome. ... of Nutrition hosted a conference, Metabolic Syndrome and the Onset of Cancer, ...

Insulin and Insulin Resistance

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作者: G Wilcox - 2005 - 被引用次数: 278 - [相关文章](#)

Metabolic syndrome represents the clinical diagnostic entity identifying those ... proportions of various nutrients, the physical form in which the component foods are ... The ratio of insulin to glucagons determines the degree of phosphorylation or ... In insulin

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Metabolic Syndrome and Insulin Resistance: Underlying Causes and ...

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作者: CK Roberts - 2013 - 被引用次数: 85 - 相关文章

The risk factors included in the syndrome were **insulin resistance**, defined as the ... In addition, inflamed **adipose tissue**, characterized by increased monocyte They also used three **different** methods to **identify** the MS, ATP III, IDF, and ATP of **Nutrition** hosted a conference, **Metabolic Syndrome** and the Onset of Cancer, ...

A Comprehensive Review on Metabolic Syndrome

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作者: J Kaur - 2014 - 被引用次数: 356 - 相关文章

2014年3月11日 - **Insulin resistance**, visceral adiposity, atherogenic dyslipidemia, ... The **metabolic syndrome** (MetS) is a major and escalating ... On the **other** hand, the short-term (5–10 years) risk is better This results in a localized inflammation in **adipose tissue** that Applied Physiology, **Nutrition** and Metabolism. 2007 ...

Origins of metabolic complications in obesity: adipose tissue and free ...

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作者: B Mittendorfer - 2011 - 被引用次数: 33 - 相关文章

Keywords: **Insulin resistance**, **adipose tissue**, ectopic fat, NAFLD ... as the "**insulin resistance syndrome**" because resistance to insulin action in **various** ... of **metabolic dysfunction** (**insulin resistance** in liver, muscle and **adipose tissue** and ... within non-**adipose tissues** that **determines** the risk for developing

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... of vascular inflammation in the metabolic syndrome: a ... - Esposito - 被引用次数: 1688

Abdominal obesity and metabolic syndrome - Després - 被引用次数: 2612

... the insulin resistance syndrome the Insulin Resistance ... - Festa - 被引用次数: 2742

Insulin and Insulin Resistance - NCBI - National Institutes of Health

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作者: G Wilcox - 2005 - 被引用次数: 345 - 相关文章

Metabolic syndrome represents the clinical diagnostic entity identifying those proportions of various nutrients, the physical form in which the component foods are The ratio of insulin to glucagons determines the degree of phosphorylation or ... In insulin resistance the effects on adipose tissue are similar, but in the liver ...

Chronic Inflammation in Obesity and the Metabolic Syndrome - NCBI

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作者: R Monteiro - 2010 - 被引用次数: 260 - 相关文章

2010年7月14日 - Inability of adipose tissue development to engulf incoming fat leads to ... to the combination of the different components of the syndrome, and it is well ... insulin resistance a key feature of the metabolic syndrome [11, 12], while the more in determining adipocyte responses implicated in obesity-associated ...

A Comprehensive Review on Metabolic Syndrome

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作者: J Kaur - 2014 - 被引用次数: 360 - 相关文章