

The association of intestinal microbiota with obesity La microbiota intestinal: Un nuevo actor en el desarrollo de la obesidad

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Intestinal microbiota (IM) plays a role in the development of obesity and its associated low-grade inflammation. Bacterial colonization of the gastrointestinal tract of germ-free mice (without microbiota) increases by 60% their fat mass, alters their fasting glucose and insulin levels, triples their hepatic triglycerides and induces adipocyte hypertrophy. IM favors fat storage in adipocytes through the inhibition of Fiaf (Fasting-Induced Adipocyte Factor), an inhibitor of lipoprotein lipase. Compared with normal weight subjects, the IM from obese exhibits a higher proportion of Firmicutes/Bacteroidetes and is more efficient in extracting energy from foodstuffs. The loss of bodyweight by a hypocaloric diet reverts the proportion of bacteria to that of lean subjects. The intake of a high fat diet also alters the IM, affecting intestinal barrier function and favoring endotoxemia. These events increase oxidative and pro-inflammatory processes in plasma and peripheral tissues and incremen