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Intricate Association of Polycystic Ovary Syndrome Symptoms with Dairy Product Consumption

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ABSTRACT

Introduction: PCOS is an endocrine and metabolic disorder affecting 4-10% of reproductive-age women globally. It features hyperandrogenism, ovulatory dysfunction, and polycystic ovarian morphology, leading to symptoms such as irregular menstrual cycles, infertility, obesity, and insulin resistance. Polycystic Ovary Syndrome (PCOS) increases the risk of type 2 diabetes, cardiovascular disease, and mood disorders.

Dairy products rich in calcium, vitamin D, and protein are vital for bone health, muscle function, and hormonal regulation. However, components like Insulin-like Growth Factor-1 (IGF-1) and androgens in dairy can impact hormonal balance, potentially worsening PCOS symptoms. Lactose may also influence insulin resistance. Low-fat dairy products are associated with reduced risks for conditions like type 2 diabetes by influencing gut microbiota and metabolic function.

Aim: To search the current literature on relationship between PCOS Symptoms and Dairy Product consumption.

Materials and Methods: The articles were searched witht the search engines with the use of follwing keep word: Polycystic ovary syndrome, Dairy prodcuts. Previous research studies have indicated a 4% reduction in type 2 diabetes risk with low-fat dairy consumption. Notably, women consuming less than one portion of milk showed lower fasting insulin levels compared to those consuming four to six portions. Yoghurt, specifically fortified versions positively affect insulin sensitivity and increase circulating anorexic peptides, which help improve glucose homeostasis. Additionally, yogurt fortified with vitamin D and probiotics led to greater reductions in Homeostasis.

Model Assessment of Insulin Resistance (HOMA-IR) and fasting insulin than traditional low-fat yogurt. The relationship between dairy consumption and PCOS is complex, with research yielding mixed results, underscoring the need for individualised strategies in managing PCOS but suggesting that a low-fat dairy diet may help with PCOS.

Conclusion: The inconsistencies in current studies call for further research to define the role of dairy products in PCOS.

Keywords: Dairy products, Low-fat dairy, Type 2 diabetes, Yogurt

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