

Nutritional composition and role of non-centrifugal sugar (NCS) in human health

ABSTRACT

Non-centrifugal sugar (NCS) has several traditional names such as brown sugar (Europe & North America), Gula Melaka (Malaysia), Jaggery and Gur (India), Kokuto (Japan), Panela (Colombia) and Muscovado (Philippines). It is obtained by boiling down the sugarcane juice until its water content evaporates. NCS has various benefits for our health as it is anti-diabetic, anti-cariogenic, antioxidant and has radical scavenging activity due to the presence of vitamins, minerals, phenolic acids and flavonoid components as well as total antioxidant capacity. This review provides a general overview of the nutritional composition and health outcomes of NCS compared to refined sugar based on literature published in scientific journals. The NCS can be considered as a nutraceutical and functional food. However, more scientific research will be needed to confirm the outcomes and increase awareness, which could then encourage more usage of this product in sugar- based food.

Keyword: Raw sugar; Brown sugar; Unrefined sugar; Health effects; Antioxidant activity; Phenolic components; Sugarcane