

## IDLI

(Jyoti Prakash Tamang\*)



*Idli* of India and Sri Lanka

### **The fermented food:**

*Idli* is a popular fermented breakfast food consumed on the Indian sub-continent. It made mainly of coarsely-ground rice and dehulled black gram, and is eaten as a round steamed spongy savoury.

### **Where is it found?**

*Idli* is prepared and predominantly consumed in South India, Sri Lanka, and also by Tamils of Malaysia and Singapore.

### **What are its ingredients?**

Black gram and rice

### **How do we make it?**

Black gram cotyledons and polished rice are washed several times with tap water to remove adhering dirt and dust particles, and surface microorganisms. They are then soaked in water for 6 h, separately, ground for about a minute (in villages, soaked black gram and rice are stone ground to obtain a coarse to smooth batter), and mixed together with salt (0.8%). The mixture is then allowed to ferment spontaneously for 20-24 h or longer at 25°C–35°C, depending upon the proportion of ingredients used and temperature. After desirable fermentation, the fermented batter is transferred to a pan for steaming for 5-8 minutes for consumption.

### **The microbiology of the process:**

Leavening and acidification of the batter are the remarkable changes that occur during *idli* fermentation, thereby enhancing the textural and organoleptic properties of the final product. The predominant bacterium responsible for souring and production of gas is *Leuconostoc mesenteroides*, but yeasts (*Saccharomyces cerevisiae*, *Debaryomyces hansenii*, *Pichia anomala* and *Trichosporon pullulans*)

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also play roles. Recently, careful analysis of the *idli* fermentation process has revealed major successional changes in the microbial community of the batter: *Weissella* appeared at 9 h, *Enterococcus* and *Streptococcus* at 15 h.

### **How/when do we use and enjoy it?**

*Idli* is eaten as a breakfast food in South India. It is also considered as a staple diet in India, and is consumed in main meals too with other vegetables, thick vegetable soup and pickles.

### **Variations, regional variations:**

*Idli* is predominately consumed in Tamil Nadu, Karnataka, Andhra Pradesh and Kerala states and union territory of Pondicherry of India; Sri Lanka and also in Singapore and Malaysia by Tamils.

### **Beneficial properties:**

*Idli* has a high nutritional value and contains important nutrients such as riboflavin, thiamine and folic acid, and essential amino acids. It also shows antioxidant activities. Important functional aspects of the yeasts in *idli* is their contribution to the nutritional value, by enhancing vitamin B levels, and decomposing anti-nutrients, such as phytic acid.

### **Cultural roots and importance**

Preparation of *idli* was mentioned in the Kannada literature around 920 CE. Indigenous knowledge of ethnic Indian people for preparation of *idli* might have standardized the natural fermentation processes of carbohydrate-rich rice and protein-rich legume mixtures as a healthy and balanced tasty food.

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