



# Nutrition In cancer

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# Cancer statistics in India

- Estimated number of people living with the disease: around 2.5 million
- Every year, new cancer patients registered: Over 7 lakh
- Cancer-related deaths: 5,56,400

## **Deaths in the age group between 30-69 years**

- Total: 3,95,400 (71% of all cancer related deaths)
- Men: 2,00,100
- Women: 1,95,300

# Effect of malnutrition on cancer and its treatment

- 25% opt out of treatment
- 20 % treatment gets delayed or is stopped
- 50% patients come from other states for treatment

- Treatment is prolonged (3-6 months)
- Sustaining the side effects of treatment is a complex issue
- Maintaining the nutritional status is a daunting task
- Rehabilitation is always neglected
- Patients insensitivity towards the nutrition is a huge challenge
- Doctors indifferences about nutrition knowledge becomes a hurdle

# Tata hospital registers 82% fall in cancer treatment dropouts

TNN | Jan 15, 2017, 00:33 IST



MUMBAI: The number of children dropping out of cancer treatment at India's premier cancer-care centre, Tata Memorial Hospital (TMH) in Parel, fell by 82% in the last five years. Only 4.4% of the children dropped out of treatment in 2015 as against 25% in 2010, said the hospital's doctors.

"Among every 100 children, 25 would drop out. Of these

dropouts, 90% would not return right after the first visit," said Dr Sripad Banavali, head of medical oncology department of Tata Memorial Hospital, which functions under the department of atomic energy. The hospital treats 2,000 new paediatric cancer patients every year.

The hospital has been able to make this turnaround by first identifying factors that led to the dropouts and then eliminating them. Financial constraints, gender bias and belief in alternative treatments were among the reasons for dropping out.

To tackle financial constraints, the hospital, through central government funds and support from donors, made treatment completely free for patients under 10 years of age. "Yet we found that drop rates didn't stop," said the doctor.

The hospital then started offering nutritional support, including 10kg ration, for the child and parents.

"Illiteracy contributed immensely to the dropout rate. There is a lack of belief in the curability of cancer," said Shalini Jatia, a volunteer at TMH paediatric department. "We have followed a holistic method to reduce the dropout rates. Not only do we support them financially, we handhold the families at every step, be it for accommodation, education or medicines," said Jatia.

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# The quality of life of cancer patients who refuse chemotherapy ☆

Ora Gilbar

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[https://doi.org/10.1016/0277-9536\(91\)90193-G](https://doi.org/10.1016/0277-9536(91)90193-G)

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## Abstract

The study compared the quality of life of 51 cancer patients who dropped out of chemotherapy, 19 who refused treatment and a further 70 patients who had completed chemotherapy. The patients were treated in five oncological institutes in Israel. The findings of this study indicate that the quality of life of patients who refuse chemotherapy is no different from that of patients who drop out of treatment or patients who complete treatment. The findings also show that the quality of life of the patients who drop out of treatment is worse than that of patients who complete chemotherapy.

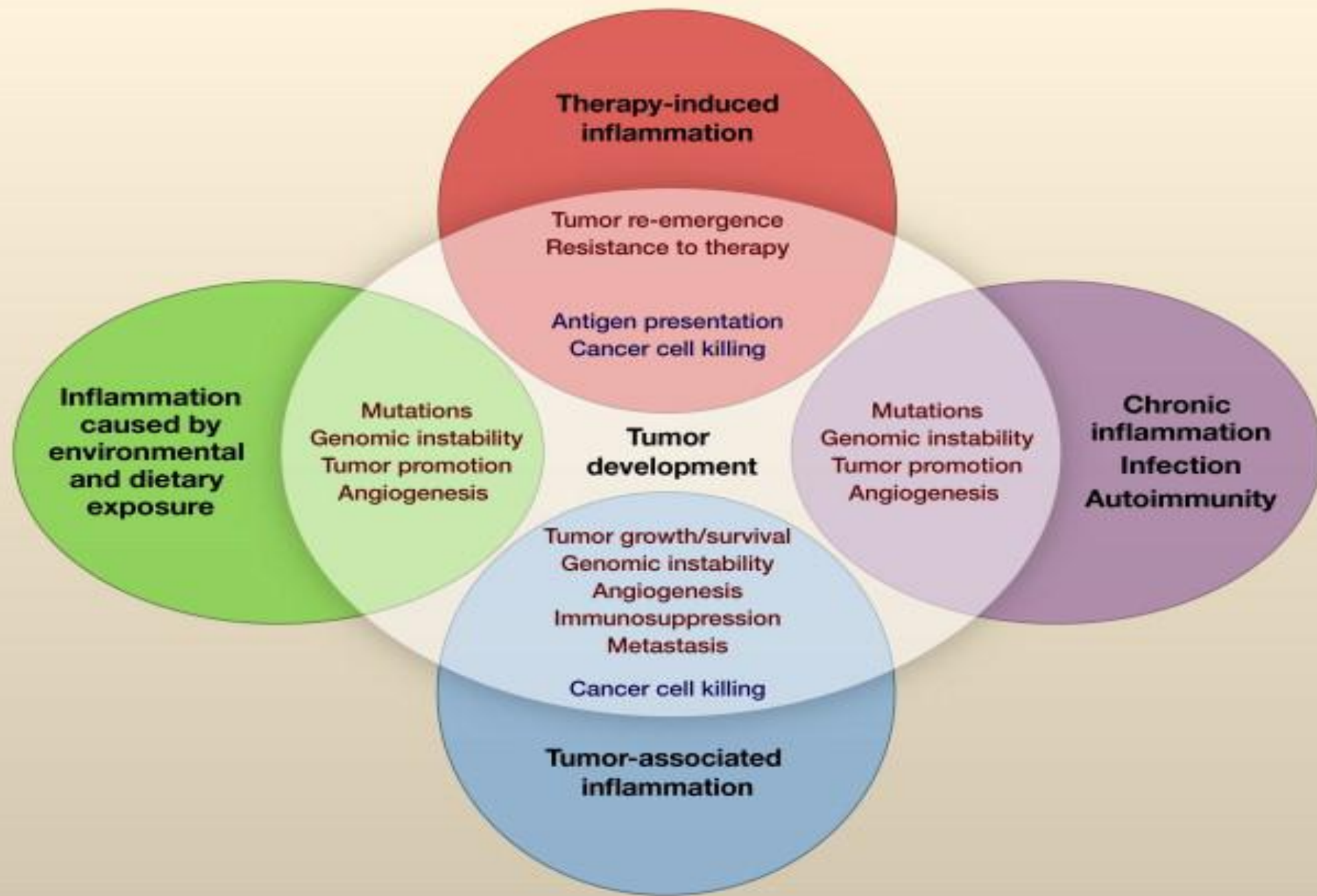
# Factors associated with malnutrition in hospitalized cancer patients: a cross-sectional study

[Fernanda Rafaella de Melo Silva](#), [Mirella Gondim Ozias Aquino de Oliveira](#), [Alex Sandro Rolland Souza](#), [José Natal Figueroa](#), and [Carmina Silva Santos](#)

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The incidence of cancer is increasing worldwide and with it the prevalence of malnutrition, which may vary between 40 and 80 % in patients with neoplasia [1, 2]. The cancer is responsible for approximately 13 % of all causes of death worldwide, however the death of almost 20 % of cancer patients occurs as a result of malnutrition and its complications, rather than the malignancy of the disease itself [3, 4].



# Cancer Challenges

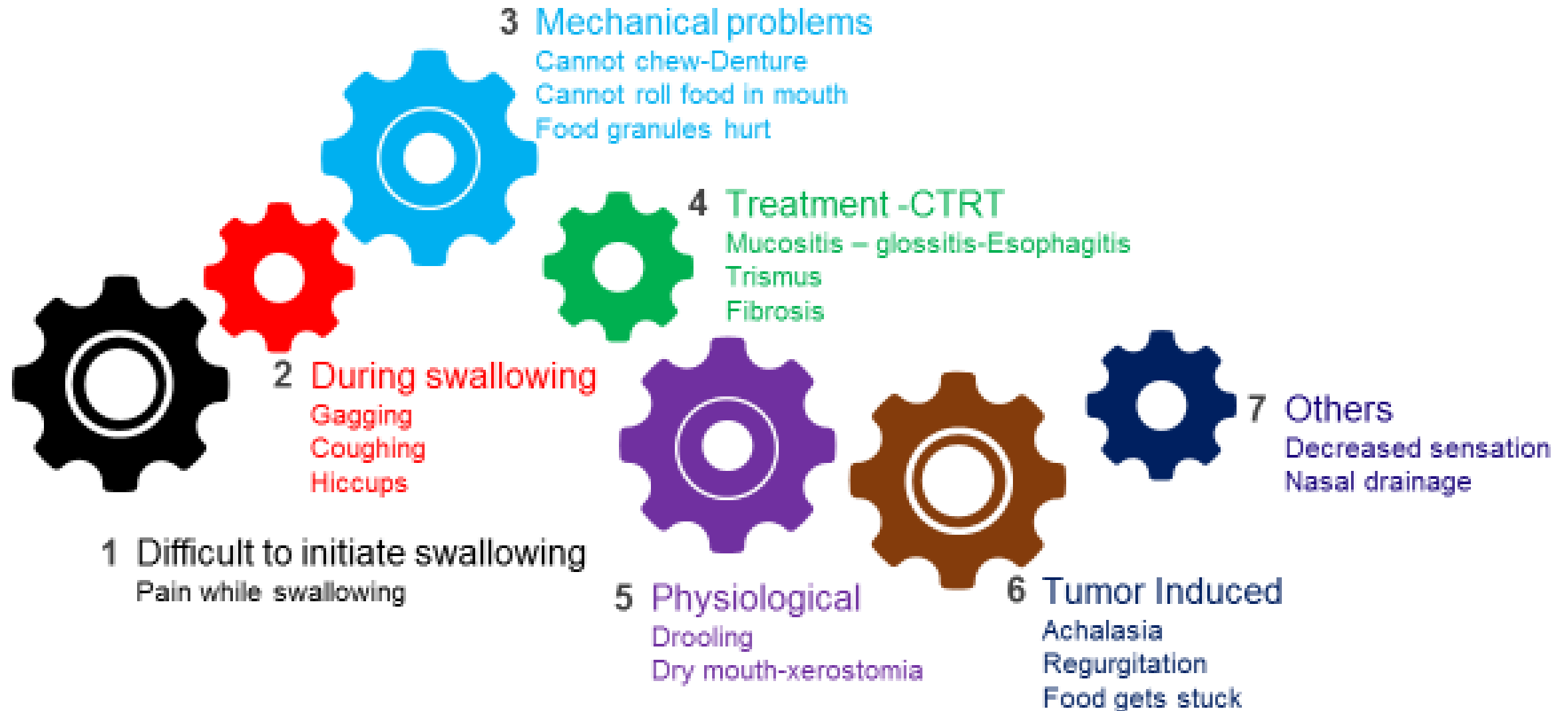
**Disease & Treatment induced Malnutrition**  
Dysphagia, Anorexia, Jaundice, Cachexia  
etc

**Logistic Support**  
Cooking, Finances,  
Resources

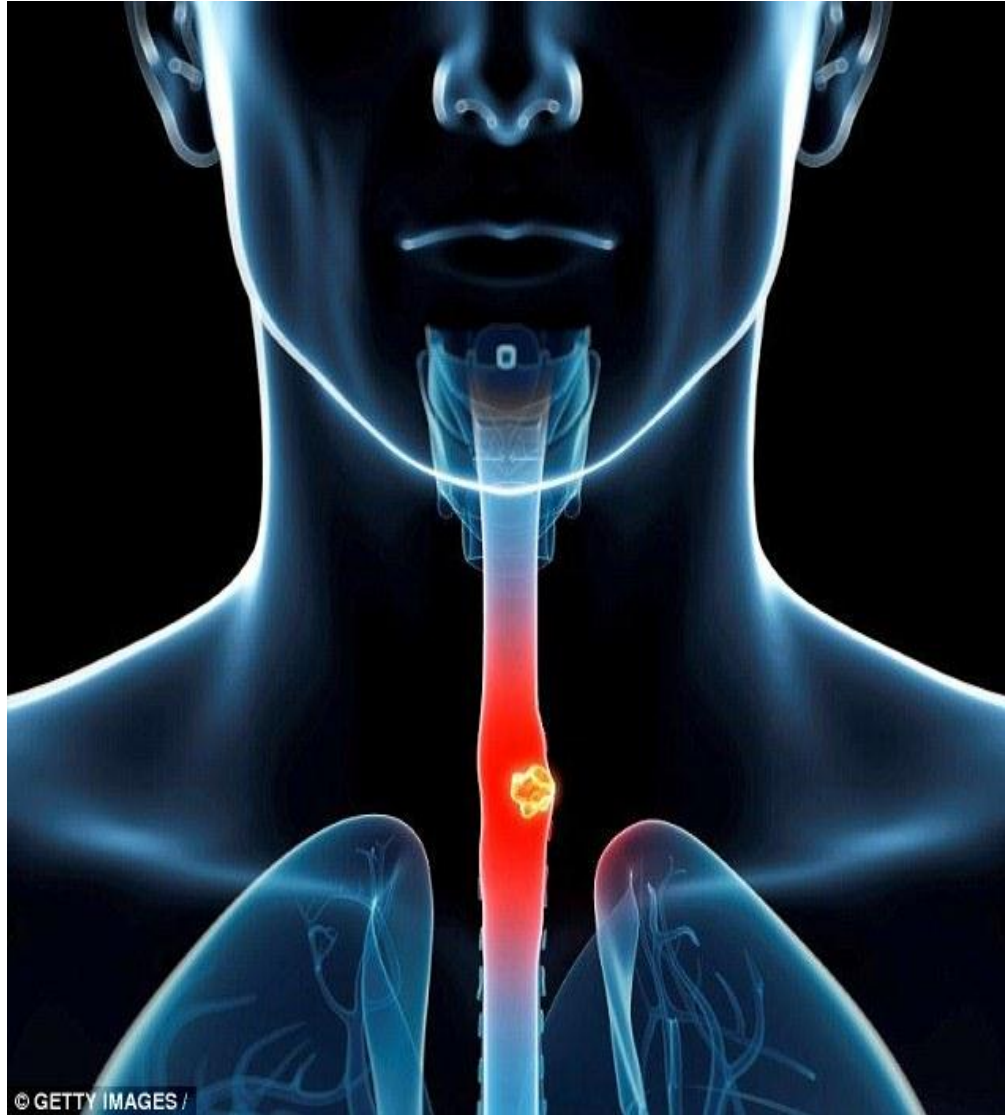


**Symptoms**  
Nausea, Vomiting, GI  
disturbances, Dysphagia,  
Xerostomia etc

# Signs and Symptoms of Dysphagia



# Treating Dysphagia



# Food characteristics

**Consistency**  
Thick, Thin, Granules.



**Can be acceptable to anyone. Regional-Religion**

**Neutropenic**

**Dense ; low volume**

**How thick is thick ?**  
**How fine is minced ?**

# How thick is thick ? How fine is minced ?



Thin purée



Thick purée



Pre-mashed



Fork mashable



## Milestones recorded in Open Access Journal publications

Curr Phys Med Rehabil Rep  
DOI 10.1007/s40141-013-0024-z

SWALLOWING DISORDERS (RE MARTIN, SECTION EDITOR)

### **The Need for International Terminology and Definitions for Texture-Modified Foods and Thickened Liquids Used in Dysphagia Management: Foundations of a Global Initiative**

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Renee Speyer • Peter Lam • Joseph Murray

<http://tinyurl.com/q54terf>

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## “Why IDDSI?”



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The International Dysphagia Diet Standardisation Initiative is supported by funding from a variety of industry sources.

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# IDDSI Framework



Safety through...

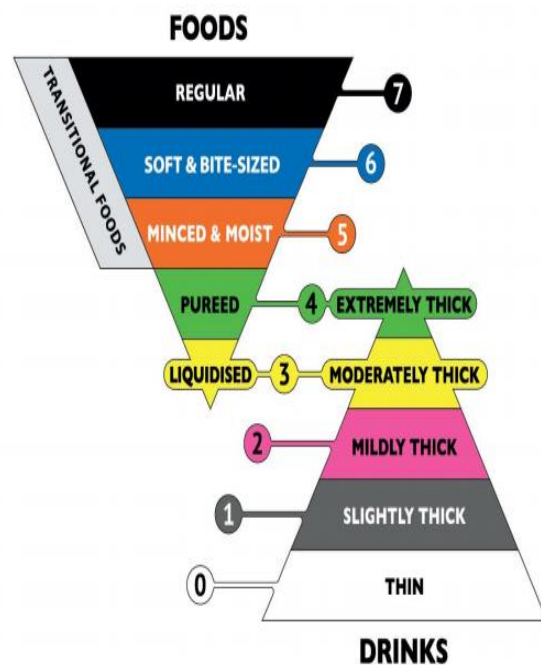
Common terminology for

All ages

All care settings

All cultures

# IDDSI Colours



IDDSI is pleased to provide the following IDDSI colour code information:

CMYK (print applications)

RGB (Screen/digital/web applications)

and Pantone (Specialist print applications)

IDDSI Number and colour in words	CMYK For print applications	RGB For screen application Digital / Web	PANTONE For specialist print applications
7 Black	C 0 M 0 Y 0 K	R 0 G 0 B 0	BLACK
6 Blue	C 100 M 52 Y 0 K 0	R 0 G 103 B 178	PANTONE DS 207-1 U
5 Orange	C 0 M 70 Y 94 K 0	R 255 G 102 B 0	PANTONE DS 49-1 U
4 Green	C 60 M 0 Y 100 K 0	R 51 G 204 B 51	PANTONE DS 286-1 U
3 Yellow	C 0 M 0 Y 100 K 0	R 255 G 255 B 0	PANTONE DS 309-4 U
2 Pink	C 0 M 81 Y 0 K 0	R 234 G 78 B 150	PANTONE DS 148-2 U
1 Grey	C 0 M 0 Y 0 K 75	R 102 G 102 B 102	PANTONE Cool Gray 10 PC
0 White	C 0 M 0 Y 0 K 0	R 255 G 255 B 255	WHITE

# IDDSI Spoon Tilt Test



IDDSI Spoon Tilt Test determines  
Cohesion (ability to hold together) *and*  
Adhesion (stickiness)

For safety the bolus should  
be cohesive enough to hold  
its shape but not sticky

**A sticky bolus can adhere to the roof of the mouth or teeth and cause a choking risk**

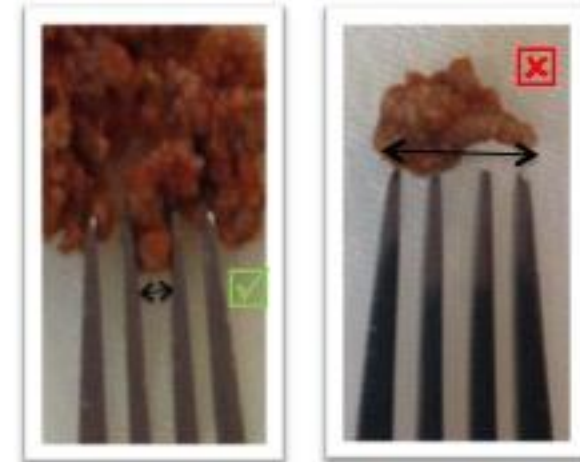


## IDDSI Fork Test

The slots/gaps between the tines/prongs of a standard dinner fork typically measure 4 mm

Pediatrics 2mm; Adults 4mm

Compliance for particle size measurement (4mm)



**5** **MINCED & MOIST**

The particle size is the avg size of “chewed particles” in adults before swallowing. For children, 2mm particle size is recommended.

# Australian Standards for Texture Modified Foods and Fluids

The provision of thickened fluids and texture modified foods is a routine part of the assessment and management of feeding and swallowing difficulties (dysphagia).

If you need assistance with the level of fluid and food texture modification required, contact your Speech Pathologist.

To find a Speech Pathologist, go to [www.speechpathologyaustralia.org.au](http://www.speechpathologyaustralia.org.au)

If you require support to determine whether a textured modified diet is meeting nutrition and hydration needs, contact your dietitian.

To find an Accredited Practising Dietitian (APD), go to [www.daa.asn.au](http://www.daa.asn.au)

## FLUID

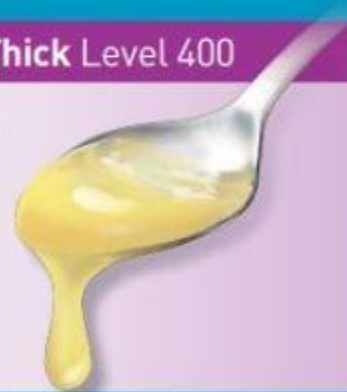
### Mildly Thick Level 150

Fluid runs freely off the spoon but leaves a mild coating on the spoon.



### Moderately Thick Level 400

Fluid slowly drips in dollops off the end of the spoon.



### Extremely Thick Level 900

Fluid sits on the spoon and does not flow off it.



## FOOD

### Texture A - Soft

Food may be naturally soft or may be cooked or cut to alter its texture.



### Texture B - Minced and Moist

Food is soft, moist and easily mashed with a fork; lumps are smooth and rounded.

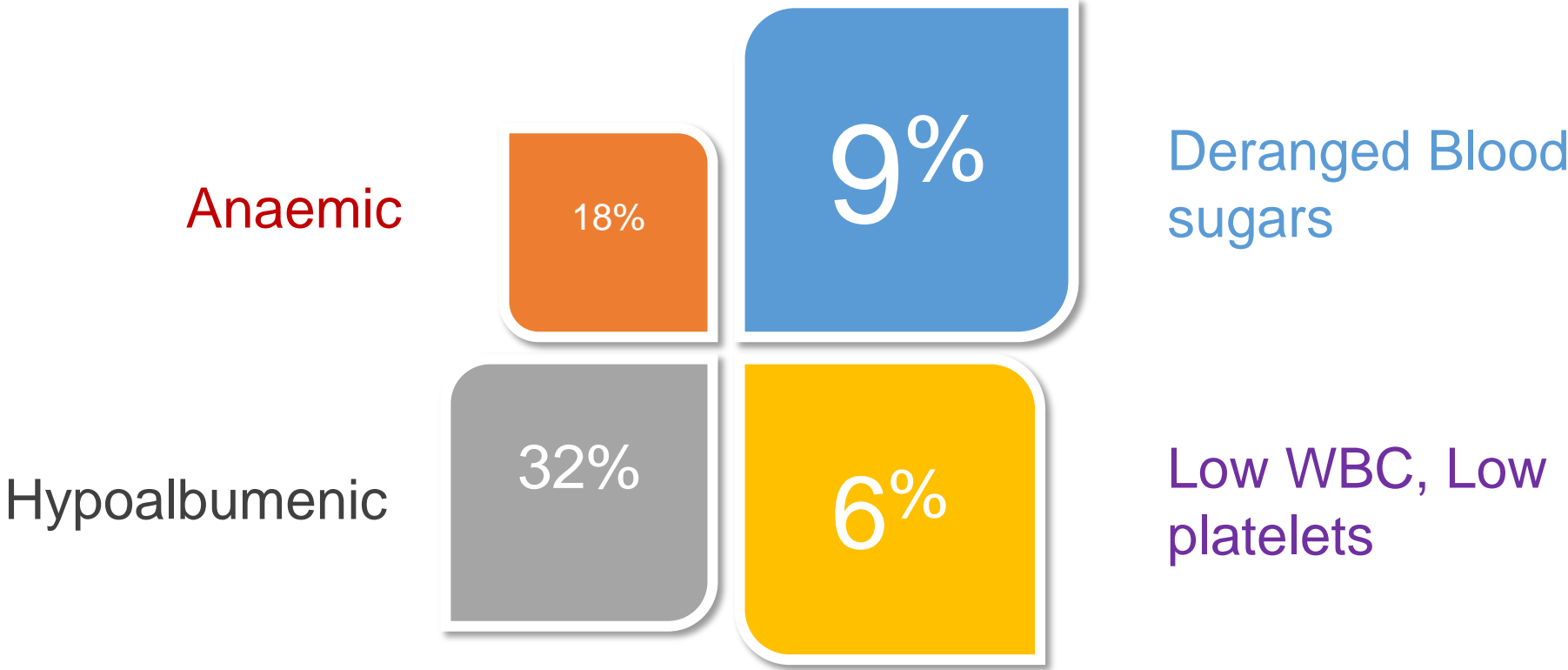


### Texture C - Smooth Pureed

Food is smooth, moist and lump free; may have a grainy quality.



# Biochemical parameters –Diet interrelation



# Replace following ingredients

1

Carbohydrates

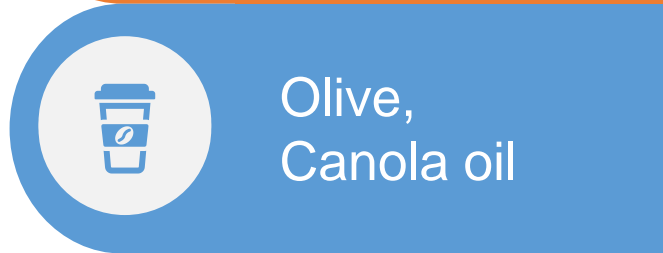


Complex

Simple sugars

2

Oil : Maintain w3 ; w6 ratio



Olive,  
Canola oil

Soy, sunflower, safflower, cotton  
seed, corn oil, peanut oil

3

Nuts and seeds



Walnut,  
almond

Ground nuts

# Phytonutrients, natural antioxidants



Garlic

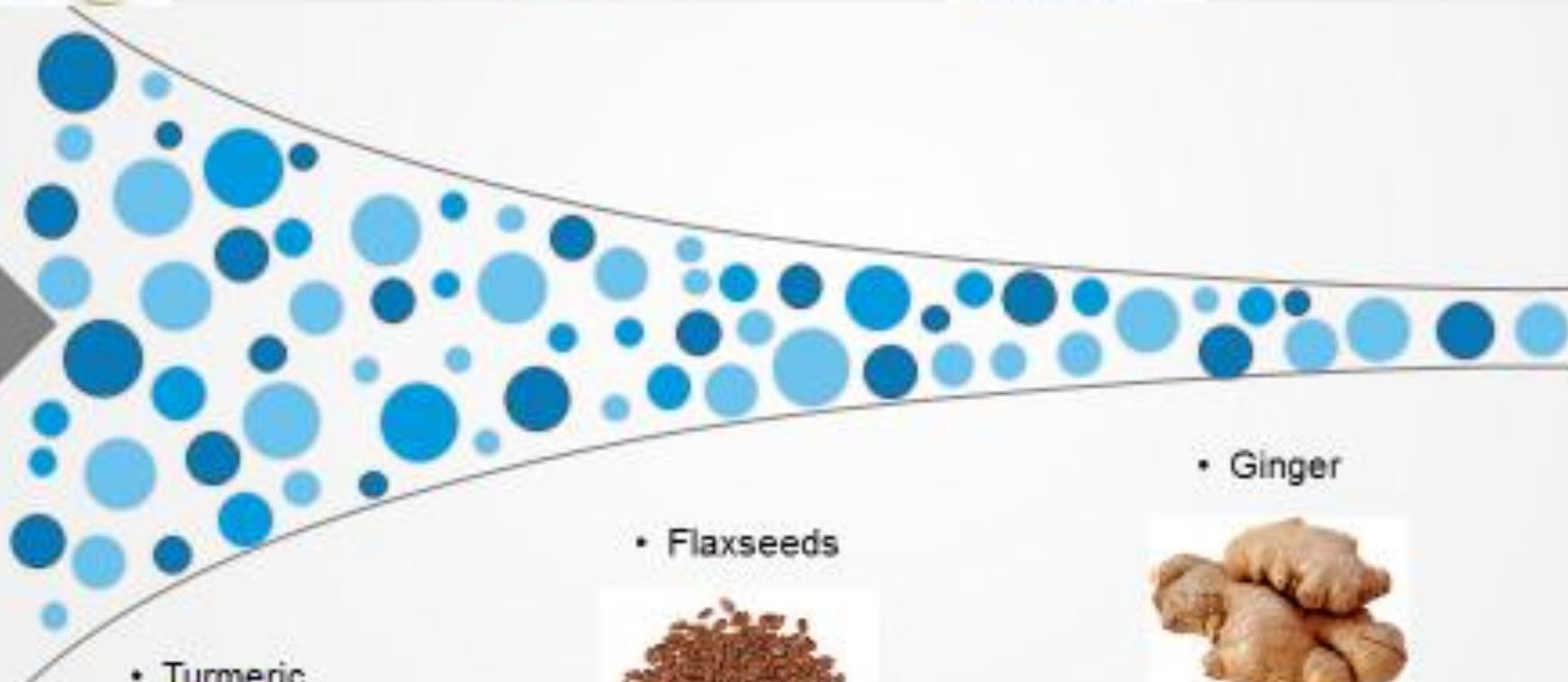


Onion



Cinnamon

Edit here



• Turmeric



• Flaxseeds



• Ginger



Thank  
you!