

DR REKHA HARISH MD FIAP

PROF & HEAD, DEPT OF PEDIATRICS, HIMSR

Ex PROF & HEAD, DEPT OF PEDIATRICS, GMC JAMMU

EB MEMBER CIAP 2010,2012

**NATIONAL CONVENER IAP TASK FORCE FOR
PREVENTION OF CHILDHOOD OBESITY [2012-2015]**

**ADVISOR IAP TASK FORCE FOR PREVENTION OF NON
COMMUNICABLE DISEASES 2017**

**NATIONAL CHAIRPERSON- IAP TASK FORCE FOR
PREVENTION OF NCDs 2019-21**

**VICE PRESIDENT NZ INDIAN ACADEMY OF PEDIATRICS
2019**

**MEMBER NCD TECHNICAL ADVISORY GROUP ASIA
PACIFIC PEDIATRIC ASSOCIATION 2020**



NEED FOR EFFECTIVE LABELLING TO DISCOURAGE JUNK FOOD CONSUMPTION IN CHILDREN: PEDIATRICIAN'S PERSPECTIVE

CSE 4-3-20

WHY CHILDREN?

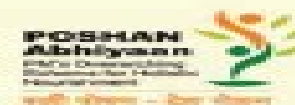
WHY DO WE NEED TO EXPAND FROM FSS?

WHAT KIND OF LABEL CAN BE UNDERSTOOD BY CHILDREN?

**HOW CAN WE HAVE A CLEAR, CONCISE, COLORFUL, SIMPLE, EASILY
UNDERSTOOD LABEL ON UP FOODS?**

**ALL NEED TO WORK ON THE GOAL-
CHILDREN REFUSE TO CONSUME JUNKFOOD!**

THE CNNS SURVEY FIRST OF ITS KIND



Comprehensive National Nutrition Survey 2016 – 2018



Key findings

- There is a growing risk of non-communicable diseases among children aged 5 to 9 years and adolescents aged 10–19 years in India
- One in ten school-age children and adolescents were pre-diabetic with fasting plasma glucose >100 mg/dl & ≤ 126 mg/dl or with glycosylated haemoglobin (HbA1c) between 5.7%–6.4%
- One percent of school-age children and adolescents were diabetic with fasting plasma glucose >126 mg/dl
- Three percent of school-age children and 4% of adolescents had high total cholesterol (≥ 200 mg/dl) and high low-density lipoprotein (LDL) (≥ 130 mg/dl)
- One-quarter (26%) of school-age children and 28% of adolescents had low high-density lipoprotein (HDL) (<40 mg/dl)
- One-third (34%) of school-age children (≥ 100 mg/dl) and 16% of adolescents (≥ 130 mg/dl) had high serum triglycerides
- Seven percent of school-age children and adolescents were at risk for chronic kidney disease (serum creatinine > 0.7 mg/dl for 5–12 years and > 1.0 mg/dl for ≥ 13 years)
- Five percent of adolescents were classified as having hypertension (systolic blood pressure >139 mmHg or diastolic blood pressure >89 mmHg)

MODIFIABLE RISK FACTORS FOR NCDs

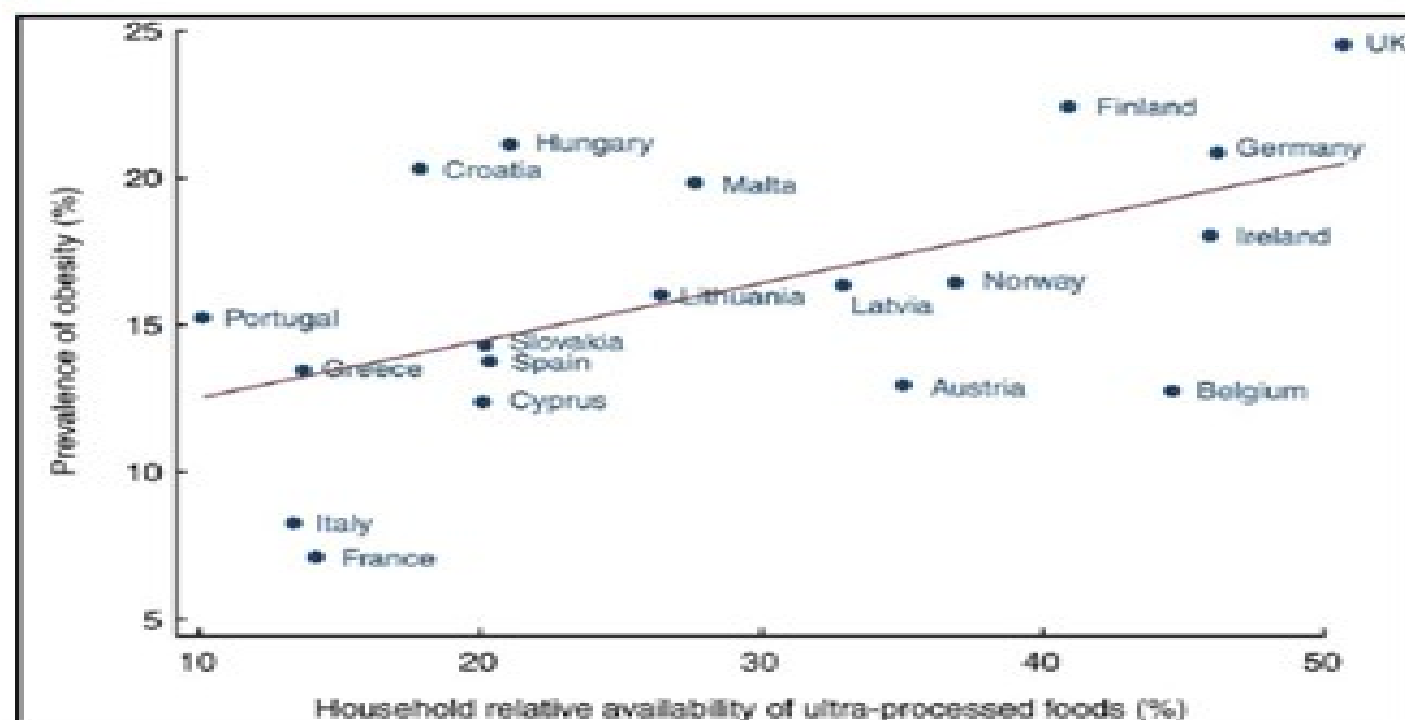
2018: WHO- 5x5 framework for tackling NCDs:

- **THE 5 DISEASES** : CV disease, chronic respiratory disease, cancer, diabetes, mental & neurological conditions
- **THE 5 KEY MODIFIABLE RISK FACTORS:** unhealthy diet, physical inactivity, air pollution, tobacco & alcohol.

The NOVA FOOD CLASSIFICATION

- **Group 1: Unprocessed** or minimally processed foods: edible parts of plants/ animals after separation from Nature or modified/ preserved by minimal processes. No substance has been added
- **Group 2: Processed Culinary ingredients**: substances extracted from food/ Nature and used to prepare, cook and season Group 1 foods e.g. salt, sugar, oil or fats
- **Group 3: Processed foods**: group 1 foods modified by adding salt, sugar, oil or fats, to preserve or enhance their sensory qualities
- **Group 4: Ultra processed foods**: formulations of substances derived from foods plus cosmetic additives, with little if any intact food. These foods are designed to be durable, omnipresent, hyperpalatable and highly profitable.

UPFs consumption contributes to obesity



Each percentage point increase in the household availability of UPFs resulted in an increase of 0.25 percentage points in obesity prevalence

Cross-sectional and longitudinal studies show that ultra-processed food consumption is associated with obesity, hypertension, dyslipidaemias, metabolic syndrome, heart attacks, stroke, breast cancer and total cancer

Ultra-Processed Food Products and Obesity in Brazilian Households (2008–2009)

Daniela Silva Canella^{1,2,3}, Renata Bertazzi Levy^{4,5}, Ana Paula Bortolotto Martins^{1,2}, Rafael Moreira Clara^{1,2}, Jean Claude Moubarac⁶, Larissa Galvani Baraldi^{1,2}, Geoffrey Cannon⁷, Carlos Augusto Monteiro^{1,2}

Abstract
Background: Production and consumption of industrially processed food and ultra-processed products have risen in parallel with the global increase in overweight and obesity and related chronic non-communicable diseases. The objective of this study was to analyze the relationship between household availability of processed and ultra-processed products and the prevalence of excess weight (overweight plus obesity) and obesity in Brazil.

Methods: The study was based on data from the 2008–2009 Household Budget Survey involving a probability sample of 11,979 Brazilian households. The units of study were household aggregates (UNITS), geographically and socioeconomically heterogeneous. Multiple linear regression models were used to assess the relationship between the availability of processed and ultra-processed products and the average of Body Mass Index (BMI) and the percentage of individuals with excess weight and obesity in the units, controlling for potential confounders: sociodemographic characteristics, percentage of expenditure on eating out of home, and dietary energy other than that provided by processed and ultra-processed products. Positive values for prevalence of excess weight and obesity were estimated according to quartiles of the household availability of dietary energy from processed and ultra-processed products.



Preventive Medicine

Consumption of ultra-processed foods and obesity in Brazilian adolescents and adults

Marta Laura da Costa Louzada^{1,2,3,4}, Larissa Galvani Baraldi^{1,2}, Eudécio Martinez Steele^{1,2}, Ana Paula Bortolotto Martins^{1,2}, Daniela Silva Canella^{1,2}, Jean-Claude Moubarac^{1,2}, Renata Bertazzi Levy^{1,2}, Geoffrey Cannon^{1,2}, Ashkan Afshin^{1,2}, Parvati Imautuma^{1,2}, Darshak Moolchan^{1,2}, Carlos Augusto Monteiro^{1,2}

Abstract
The present investigation describes the relationship between the consumption of ultra-processed foods and obesity in Brazilian adolescents and adults. We performed a cross-sectional analysis of anthropometric and dietary data from 15,077 adults (25–44 years) participating in the National Health and Nutrition Examination Survey 2005–2014. Dietary data were collected by 24-h recall. Height, weight and waist circumference (WC) were measured. Foods were classified as ultra-processed based on the NOVA classification. Multivariate linear and logistic regression models were used to evaluate the association between ultra-processed food consumption (in percent of total energy) and obesity (BMI ≥ 30 kg/m²) and abdominal obesity (WC ≥ 102 cm for men and ≥ 88 cm for women).



Ultra-processed food consumption and excess weight among US adults

Filippo Judd¹, Eudécio Martinez Steele^{2,3}, Niyati Parekh^{1,4}, Carlos A. Monteiro^{2,3} and Virginia W. Chang^{1,4,5}

Abstract
Ultra-processed foods provide 50% of energy intake and 80% of added sugars in the American diet. Nevertheless, the association between ultra-processed food and excess weight has not been investigated in a US sample. The present investigation describes the association between ultra-processed food and excess weight in a nationally representative sample of US adults. We performed a cross-sectional analysis of anthropometric and dietary data from 15,077 adults (25–44 years) participating in the National Health and Nutrition Examination Survey 2005–2014. Dietary data were collected by 24-h recall. Height, weight and waist circumference (WC) were measured. Foods were classified as ultra-processed based on the NOVA classification. Multivariate linear and logistic regression models were used to evaluate the association between ultra-processed food consumption (in percent of total energy) and obesity (BMI ≥ 30 kg/m²) and abdominal obesity (WC ≥ 102 cm for men and ≥ 88 cm for women).



Canadian Journal of Public Health Consumption of ultra-processed foods and obesity in Canada. –Manuscript Draft–

Manuscript Number	CJPH-18-00041
Full Title	Consumption of ultra-processed foods and obesity in Canada.
Article Type	Original Article
Section/Category	Quantitative Research
Keywords	OBJECTIVES: To assess the association between consumption of ultra-processed foods and obesity in the Canadian population.
Abstract	INTRODUCTION: Cross-sectional study including 18,381 adults aged 18 years or older from the 2004 Canadian Community Health Survey. Study 2.2. Ultra-processed food intake was estimated using daily dietary energy intake of ultra-processed food (% of total energy intake) from data obtained by 24-hour food recall. Obesity was assessed using body mass index (BMI ≥ 30 kg/m ²). Univariate and multivariate linear regression were performed to describe ultra-processed food consumption according to sociodemographic and demographic variables, and multivariate logistic regression was performed to verify the association between ultra-processed food consumption and obesity, adjusting for potential confounders including sociodemographic factors, educational activity, smoking, immigrant status, residential location and measured as self-reported weight and height.
CONCLUSIONS	CONCLUSIONS: Ultra-processed food intake was higher among men, younger adults, with lower years of formal education, smokers, physically inactive, and Canadian-born individuals. Ultra-processed food consumption is positively associated with obesity. After adjustment for confounders, individuals in the highest quartile of ultra-processed food consumption were 20% more likely of being obese compared to individuals in the first quartile (adjusted OR 1.20; 95% CI 1.05–1.37).



Nutrition, Metabolism & Cardiovascular Diseases

Consumption of ultra-processed food products and its effects on children's lipid profiles: A longitudinal study

F. Ribeiro^{1,2,3}, P.D.B. Campagnolo^{1,2,3}, D.J. Hoffman^{1,2}, M.B. Vireo^{1,2}

Abstract
Background and Aim: Cardiovascular disease development is related to known risk factors (such as diet and blood lipids) that begin in childhood. Among dietary factors, the consumption of ultra-processed products has received attention. This study investigated whether children's consumption of processed and ultra-processed products at preschool age predicted an increase in lipid concentrations from preschool to school age.



Ultraprocesed food consumption and risk of overweight and obesity: the University of Navarra Follow-Up (SUN) cohort study

Raquel de Dios Mendonça^{1,2,3}, Adriane Meryel Pereira^{1,2,3}, Alfredo Gea^{1,2,3}, Carmen de la Fuente-Ariza^{1,2,3}, Miguel Ángel Martínez-González^{1,2,3}, Aina Cristina Souza Lopez^{1,2,3} and Maria Bes-Rastrollo^{1,2,3,4}

Abstract
Background: Ultra-processed food consumption has increased in the past decades. Evidence suggests a positive association between ultra-processed food consumption and the incidence of overweight and obesity. However, few prospective studies in non-adolescent populations have investigated this potential relation in adults.



ORIGINAL ARTICLE Ultra-Processed Food Consumption and the Incidence of Hypertension in a Mediterranean Cohort: The Seguimiento Universidad de Navarra Project

Raquel de Dios Mendonça^{1,2,3}, Aline Cristina Souza Lopez^{1,2,3}, Adriane Meryel Pereira^{1,2,3}, Alfredo Gea^{1,2,3}, Miguel Ángel Martínez-González^{1,2,3}, and Maria Bes-Rastrollo^{1,2,3,4}

Abstract
Background: Ultra-processed food consumption has increased in the past decades. Evidence suggests a positive association between ultra-processed food consumption and the incidence of hypertension. However, few prospective studies in non-adolescent populations have investigated this potential relation in adults.



Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort

Thibault Fiolet¹, Bernard Sioen², Laura Sellem³, Emmanuelle Kesse-Guyot¹, Benjamin Allès¹, Caroline Milet¹, Mélanie Deschamps¹, Philippe Frossier¹, Pascale Lardinois-Maret¹, Marie Bédard¹, Serge Hercberg¹, Céline Lavallois¹, Carlos A. Monteiro¹, Chantal Julia^{1,4}, Mathilde Touvier¹

Abstract
OBJECTIVE: To assess the prospective associations between consumption of ultra-processed food and risk of cancer.

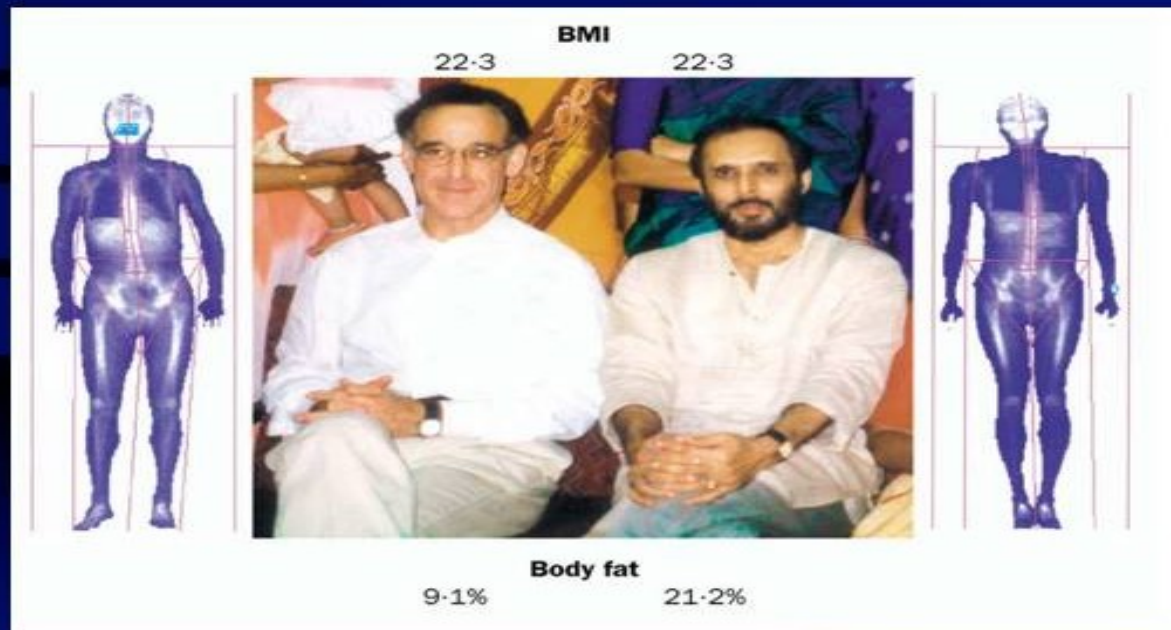


DRS ...YUDKIN &YAJNIK !!

The Y-Y paradox

Chittaranjan S Yajnik, John S Yudkin

THE LANCET • Vol 363 • January 10, 2004



National Consultative group constituted by Nutrition Chapter of Indian Academy of Pediatrics

The **JUN'CS'** Food :

- **J**- Junk food (foods high in fats, especially saturated and trans-fats, sugars and salts, and foods lacking in micronutrients/minerals)
- **U**- Ultra processed foods (as defined in the fourth category of NOVA classification)
- **N**- Nutritionally inappropriate foods. Home-made foods can also qualify to be nutritionally inappropriate if prepared in recycled oil, or contain high amount of sugar, fat or salt.
- **C**- Caffeinated/colored/carbonated beverages
- **S**- Sugar sweetened beverages

THE FIRST JUNK IN HUMAN LIFE-

LABELLING OF INFANT MILK SUBSTITUTE AND INFANT FOOD-

- **“TO BE TAKEN UNDER MEDICAL ADVICE”.**
- **Should be used only on the ~~advice~~ **Prescription** of a health worker**
- **All should have a picture of a beautiful baby being fed by mother**
- **All infant foods need to have warning too –That home made foods are ideally recommended for infants**

THE MILIEU AND THE CHILD



- ❖ Working & Guilty Parents who lack time
- ❖ Screen Addicts since infancy/Mobiles in hand
- ❖ Money in pocket
- ❖ Pumped by advertisements-TV/Movies/video games/internet websites/smart phone apps
- ❖ Have Pestering Power From infancy
- ❖ Yielding Grandparents
- ❖ Free Home Delivery 24x7/Sales
- ❖ Schools thrust is on academics
- ❖ JUNCS Sales at strategic points around school
- ❖ Home is no different from a School Canteen
- ❖ Misses breakfast/lunches alone
- ❖ Foods are mandatory part of any Celebration/Reward/Punishment

CURRENT FRONT OF PACK LABEL FOR CHILDREN?

- **Daily energy requirement** is approximately 2000-2150 kcal for a 10-11 year old
 - ~25% from each main meal (3 meals/day) and 10-12% from snacks (2 snacks/day).
 - Therefore, thresholds have been calculated on the basis that each 100 g of product provides approximately 230 kcals
 - **Sodium** (mg) & energy content (kcal) is equal to or higher than 1:1, the product is considered excessive in sodium. The ratio is derived from a max RDA of 2000 mg of sodium, on an av total daily energy intake of 2000 kcal
 - **Sugar** thresholds are based on the rationale that a product is considered excessive in free sugars, if amount of energy (kcal) from free sugars [free sugars (g) x 4 kcal] is equal to or higher than 10% of the total energy (kcal) for the product. A lower threshold of 5% is used for sugar sweetened beverages.
 - **Total fat** is considered excessive, if amount of energy (kcal) from total fats [total fats (g) x 9 kcal] is equal to or higher than 30% of the total energy (kcal) and excessive in saturated fats, if in any given quantity of the product the amount of energy (kcal) from saturated fats [saturated fats (g) x 9 kcal] is equal to or higher than 10% of the total energy (kcal).
-
- **CHILDREN ARE GROWING UP IN THE “JUNKY” ENVIRONMENT, INSTEAD OF HOME MADE COMPLIMENTARY FEEDING ALSO THEY ARE GIVEN JUNK BOUGHT FROM MARKET**
 - **HOW WILL ADULT CUT OFFS BE APPLICABLE TO <10 YRS CHILDREN TOO?**

PEOPLE MUST BE WARNED ABOUT BOTH PACKAGED AND FAST FOOD THROUGH NOTICEABLE WARNING SYMBOLS



- Easy to notice – Since it comprises of colours and symbols
- Easy to interpret – does not require any calculation
- Enables consumer to identify unhealthy foods – more than any other FoP label
- Helps transcend the literacy and language barriers

Israel (Proposed)



Israel proposes icons in their warning labels for "High sugar", "High sodium" and "High saturated fats"

WHICH NUTRIENTS SHOULD BE HIGHLIGHTED ON FOP

- Salt
- Sugar
- Fat
- Trans fat
- Calories

- Sodium vs Salt
- Added sugar
- Saturated fat
- Trans fat
- Calories
- Total fat.

Under the new regulations, companies will have to display nutritional data clearly on front of their product packs

PROVISIONS



CURRENT LAW

FSS (Packaging & Labelling)
Regulations, 2011



PROPOSED REGULATION

Draft FSS (Labelling and Display)
Regulations, 2019

NUTRITION LABELLING

- Energy (in Kcal)
- Protein (in g)
- Carbohydrate with sugar (in g)
- Total fat (in g)
- Trans fat (in g) [included after law was amended in 2016]
- Saturated fat (in g) [included after law was amended in 2016]

These nutrients are to be declared at the back of pack per 100 g or ml or per serve

Serving size only in case of per serve declaration of nutrients

- Energy (in Kcal)
- Carbohydrate with sugar
- Trans fat
- Cholesterol
- Added sugar
- Protein
- Total fat
- Saturated fat
- Sodium

These nutrients are to be declared at the back of pack per 100 g or ml or per serve

Their per serve contribution to RDA*, considering 2,000 Kcal, 67 g of fat, 22 g of saturated fat, 2 g of trans fat, 50 g of added sugar, and 2,000 mg of sodium will also be declared

Serving measure and number of servings

THRESHOLDS FOR FOP LABELLING??

- Thresholds have been **logically** defined by the **WHO-SEARO nutritional profiling model**
- This was the basis of thresholds provided by FSSAI in draft labelling regulations of 2018 and 2019.
- The FoP labels can be easily based on these thresholds

THE DEBATE ---AN IDEAL FOOD LABELLING?

- HOW TO LABEL?
- TRAFFIC LIGHT BASED?
- WHICH NUTRIENTS SHOULD BE INCLUDED?

Nutrition Facts
Serving Size 2/3 cup (55g)
Servings Per Container About 8

Amount Per Serving
Calories 230 **Calories from Fat** 40

% Daily Value*

Total Fat 8g	12%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	12%
Dietary Fiber 4g	16%
Sugars 1g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%

* Percent Daily Values are based on a diet of other people's secrets.
Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		360g	375g
Dietary Fiber		25g	30g

per 30g cereal:

16 SERVINGS	ENERGY 460kJ 110kcal 8%	FAT 0.7g LOW 2%	SATURATES 0.1g LOW 1%	SUGARS 5.1g HIGH 8%	SALT 0.2g MED 4%
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% of an adult's reference intake.
Typical values per 100g: Energy 1530kJ/360kcal

Traffic light label

Menu label

Premium & Double Stacked Subs

Cal	6" Sub	8" Sub	Cal	6" Sub	8" Sub
590 THE FEAST	5.29		330	DOUBLE Turkey Breast	4.99
520 BIG PHILLY CHEESESTEAK	5.29		480	DOUBLE Sweet Onion Chicken Teriyaki	5.49
580 PASTRAMI	5.29		420	DOUBLE Subway Club	5.29
			630	DOUBLE Italian B.M.T.	5.29
				DOUBLE (630-1260 cal)	3.00

Keyhole

CAN CHILDREN UNDERSTAND SERVING SIZE ?

RATIONALE FOR SERVING SIZE IN A SINGLE USE SMALL PACK?



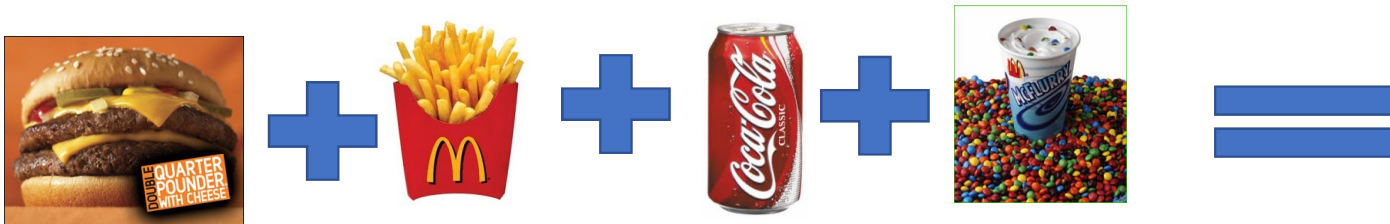
A POSSIBILITY-IF HE GETS HOLD OF A PACK WITH GREEN LABEL FSS/SERVING SIZE,HE CAN OVER CONSUME IT.

COMMONEST MEAL ORDERED

- Hamburger
(Double quarter pounder with cheese)
- Large french fries [FREE]
- A can of coke
- M&M's McFlurry



Nutrition facts



	Total amount	RDA (for an adolescent)
CALORIES	2010 kcl	2000-2500 kcl
TOTAL FATS	85g	70g
SATURATES	36g	18g
CARBOHYDRATES	251g	289g
SUGARS	133g	30g
FIBER	10g	25g
PROTEIN	67g	55g

4.5 HOURS RUNNING
 =10.5 MILES RUN
running (5mph)

8.5 HOURS WALK = 21 MILES WALK
(2.5mph)
[leisure walk for 1 hour ~240 calories]

TO SAVE CHILDHOOD:
URGENT NEED FOR-

- SIMPLE
 - CLEAR
 - COLOR CODED
 - INFORMATIVE LABEL
 - EASY TO UNDERSTAND
- HELPS IN LOGICAL
DECISION



PLEA ON BEHALF OF NCD PREVENTION ACADEMY
& INDIAN ACADEMY OF PEDIATRICS

**JUNK FOOD NEEDS NO
LESS THAN RED ALERT**



**WHY CANT WE TREAT
JUNK FOOD LEGALLY AS
TOBACCO ??????**

LET'S REACH OUR AWARENESS TARGET - NO DEMAND OF JUNK FOOD

04 | metro | hindustantimes

We don't need junk food, say school kids

MOVE HC The court had earlier slammed Centre for delay in enforcing the ban

Harish V Nair


h.v.nair@hindustantimes.com


NEW DELHI: On Wednesday, a group of school students joined the growing lobby demanding ban on the sale of junk food in schools and college canteens across the country.


"Uncontrolled consumption of junk food and beverages is leading to obesity. Does the fundamental right of an individual or a group to engage in an economic activity allow him to harm the lives of others?" asked the petition filed by 10 students of Father Agnel School. They also submitted postcards to the bench headed by Acting Chief


JUNK THIS

What uncontrolled consumption of such foods and beverages can do to you


 Biscuits, burgers, colas, fries and chips are the most consumed snacks among children

 Junk food mostly comprises refined sugar and fat that can lead to several health problems


 Their regular consumption leads to excess weight and obesity


 Junk food is a major cause of heart diseases


and diabetes as it contains hydrogenated vegetable oils that lead to cholesterol accumulation in arteries

 High cholesterol in junk food puts extra strain on the liver



 High fat may affect brain functions such as concentration and memory.

 Consumption of colas can lead to bone damage, tooth decay, increased risk of kidney stones etc.

 With no fibre, vitamins or anti-oxidants in it, junk food has no or very little nutritional value.

ICDS: A BHIMANYU

We want the government to take "has written" to all state health told the court: "On one hand,

THANK YOU

Fat/FA	REQUIREMENT
TOTAL FAT	20-35 %E
SFA	<10% E
Total PUFA (LA + ALA + EPA + DHA):	6 – 11%E
n-6 PUFA (LA).	2.5 – 9%E
n-3 PUFA (ALA)	0.5 – 2%E
TFA	0%
MUFA By difference ~ Total fat [%E] – SFA [%E] – PUFA [%E] – TFA [%E]	15 – 20 %E

DIETARY GUIDELINES

ENERGY FROM FATS : (% OF TOTAL CALORIES)

- Adults -20 -35 %
- Children: 4 to 18 yrs 25 -35 %
 - < 4 yrs- 30 to 40 %
- < 10 % saturated fats: replacing them with MUFAs & PUFAs.
- Trans fats consumption as low as possible[WHO<1%]
- Fats for cooking-
 - High MUFA canola oil ,olive oil.
 - High n-3 PUFA alpha-linoleic acid eg. walnut oil, Fish oil/Flaxseed oil.to a lesser extent,soybean oil, are also beneficial.

benefits of n-6 FAs Sunflower/Safflower/Corn Oils-UNCERTAIN??