



SAPIENZA
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Adolescence “the revolution age”: How to make a healthy revolution?

Andrea Vanía

Past-President ECOG, Boards SIO & SIMA

Centro di Dietologia e Nutrizione Pediatrica

Dept .of Paediatrics

Policlinico Umberto I, Rome (Italy)

The adolescent, this unknown person

Revolution! A fundamental and relatively sudden change.
A complete change from one state to a totally different one.

(*Aristotle, Politics, Book 5*)

- This well-known *pivot* of human development is not a single moment but a long period of time, from the first signs of pubertal changes (**pre-adolescence**) to the end of height growth and cognitive development (**late adolescence**)
- During all its duration many aspects of a single person's life are going to change, some of them dramatically:
 - **Rapid growth** ($7 \div 14$ cm/yr, during $2 \div 4$ yrs) ...but not a steady velocity, nor at the same time for everybody
 - **Pubertal and sexual development**: body perception needs rapid adaptations ...often the body is ready, the brain not yet → a *break* with the past is needed, but can be difficult!

Adolescent *break*?

With the irruption of the abstract thought, all schemes must be remodeled, the break of symmetry requires a reorganization, a precise position taken (even in exaggerated forms) in front of life. The main indicator of a well-established adolescence is the ability to establish [...] **satisfying relationships with oneself and one's body.** (*Guidano, Complexity of the self, 1987*)

A satisfied adolescent?



All adolescents may fall prey to unhealthy behaviours

- ☯ During the **early adolescence** (or **puberty**, 10-11 to 14 yrs), the ability to consider the risks for health, linked to incorrect eating- and life-styles, is extremely reduced
- ☯ During the (**second**) **adolescence** (15 to 17-18 yrs), the search for independence, together with the search for peers – often back and forth – may have a strong influence on eating- and life-styles
- ☯ During the **late adolescence** (18 to 20-21 year, often far beyond – **delayed adolescence**) thoughts are more than before dominated by one single target: **independence**. The struggle for it, and for social acceptance, may still influence negatively the general behaviour, as well as the adherence to healthy life-styles



The youth is not the only one facing and coping with changes: parents and family, peers, teachers and doctors share the same task. All of them must cooperate, in accordance with their role/age/responsibility – and knowing their limits – to give rise to the adult which, in embryo, the adolescent contains, and to transform a possibly devastating revolution into a healthy one.



Does adolescence affect nutrition?

- It shouldn't ...apparently: a child eats, a teen eats, an adult eats... always the same process, and with the same purpose
- But eating includes **relational**, **biochemical**, and **physiologic** aspects.
- **Relational aspects**, during adolescence, may outdistance all the others, and may become the most important ones, driving the feeding behaviour with strong power, stronger than ever seen before, and possibly after.
- As for the **physiology**, an adolescent needs – for instance – much more energy, Fe (especially in girls), Ca+P, and Zn (especially in boys) than before.

ITALIAN RDA FOR MINERALS, AVERAGE REQUIREMENTS (2014)								
		Ca (mg)	P (mg)	Mg (mg)	Fe (mg)	Zn (mg)	Cu (mg)	Se (µg)
LATTANTI	6-12 mesi	nd	nd	nd	7	2	nd	nd
BAMBINI-ADOLESCENTI								
	1-3 anni	500	380	65	4	4	0,2	16
	4-6 anni	700	410	85	5	5	0,3	20
	7-10 anni	900	730	130	5	7	0,4	30
Maschi	11-14 anni	1100	1060	200	7	10	0,6	41
	15-17 anni	1100	1060	170	9	10	0,7	45
Femmine	11-14 anni	1100	1060	200	7/10	8	0,6	40
	15-17 anni	1000	1060	170	10	8	0,7	45

Relational and physiologic aspects may blend together, leading to an explosive mix

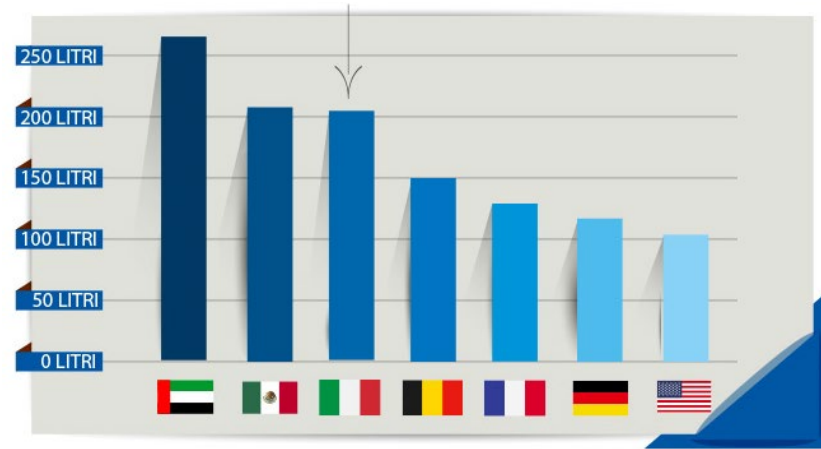
A couple of examples:

- **Iron:**

- 80% of iron, in the Mediterranean diet, is non-organic, and 70% comes from vegetables, legumes, cereals, fruits ([INRAN-SCAI unpubl. data, 2005](#))
- But **vegetables, legumes**, and often **fruits** are not preferred foods in adolescence
← **influence by peers + individual choices**

- **Calcium:**

- Absorption's efficiency is quite low (30%) if compared to needs (>1 g/day)
- In adolescence: water partly represented by SSDs + partly by bottled water (often low in Ca) + low intake of milk (& dairy foods)
← **influence by peers & marketing**



From Beverage Marketing Corp. 2016

Nutritional choices in adolescence

- Individual eating (→ nutritional) choices: greater and greater importance
 - Becoming older (= more adult?) teens want – and need – greater autonomy and independence → they ask to control themselves **their** choices about **what** to eat
- Their vulnerability (once secondary, i.e. mediated by parents) becomes a primary one (personal choices)
- There is still high vulnerability (active control, but **lack of knowledge**)



What is the worst: teens “think” to know everything

- ✧ According to recent surveillances, adolescents (15-18 yrs old) feel like they have enough information about what they eat and drink.
 - 52% “sufficiently” informed
 - 38% “scarcely” informed
 - 6 % “well” informed
 - 4 % “not at all” informed
- ✧ 45% get the info from: internet, TV, friends.
- ✧ 32% from family or packaging of products found at home / supermarket.
- ✧ **Only 16% get the info from school, and 7% from health figures**
- ✧ 76% chose a drink “for its taste”.
- ✧ 22% “because I know what it contents”.

Data sources: Ipsos Explorer, ISTAT, Cranut 2015÷2017



Adolescence becomes the time of “eating rebellion”, where nutrition acquires new values: it is no longer a family ritual, but something to be shared with peers.

Eating becomes an identifying part of the self.

“Knowing everything” means that old family traditions can be refused. Thanks also to the help from an **aggressive marketing**, globalized tastes and foods can substitute traditional food. And eating ***fast food and/or junk food*** becomes **attractive**, no matter the low quality!



Linked problem: the habit of **consuming (regularly) *fast food* and *junk food*** reduces **the perception of the importance of eating** the most typical Mediterranean foods, such as **fruits, vegetables and legumes**, making difficult to maintain a good shape and health.

What are the major eating issues in adolescence?

TOO MUCH!

Total energy

Animal proteins
(diary products, meat, eggs)

Sugar
(table sugar, fructose, sweets)

Hidden fats

SSDs and N-SSDs

TOO LITTLE!

Complex CHO
(wholemeal pasta, rice, cereals)

Fruits and vegetables

Legumes

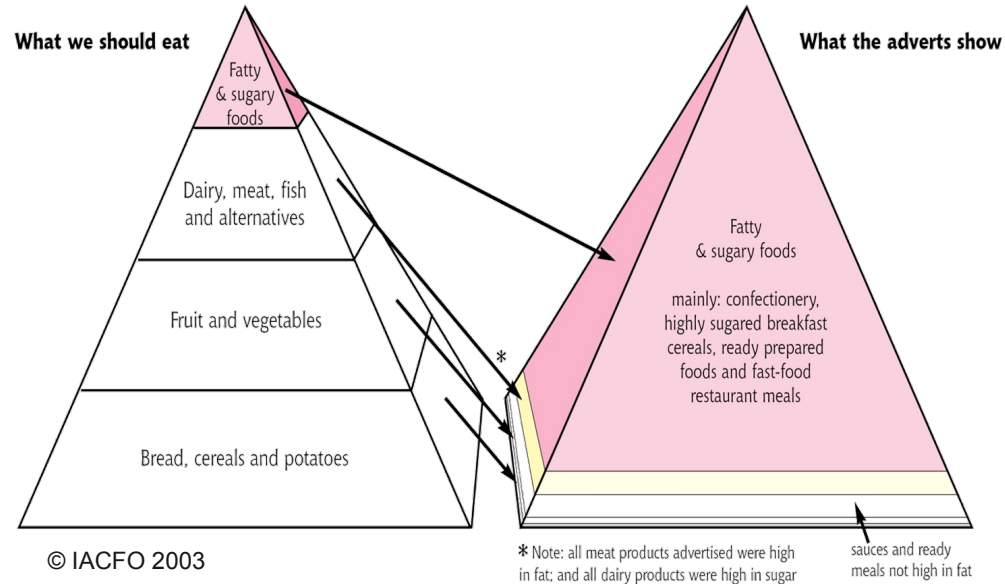
Sea products

Milk (?), yogurt

What are the major nutritional issues in adolescence?

Almost all nutritional surveys agree: adolescents show the highest prevalence of nutritional deficits

- ✧ Ca, Fe, vitamins B₂, B₁, A and C
- ✧ Fats >33% of energy intake
- ✧ Chips (or similar products) >25% of vegetable intake
- ✧ Sugars: exceed the intake of complex CHO and fibres



Given the premises, what can we do?

- It is difficult to tell **what** can transform such a revolution from a bad one into a healthy one
- It is easier, though, to identify which aspects are most likely unsuccessful:
 - Adults – including many physicians and health personnel – tend to **transfer “their” way of seeing life** to the adolescent instead of trying to understand the latter’s way of thinking.
 - Picturing frightening scenarios about their future health
 - Actively stimulating the adolescent to follow sage adults’ example
 - Pointing to a more “adequate” peer (usually not the most popular one)
 - are all examples of unsuccessful approaches.

“knowing the limits” is really important

Any adolescent searches and finds **affective and expressive spaces** in the peers' group, **not (or not only anymore) inside the family** → **families must be aware of this!**

Among peers the teen can find **cultural models of identification**. Into the peers' group the teen can dive: he/she will assume styles and ways of behaving in accordance to the group → **teens should be made aware of this!**

In other words, the teen camouflages him/herself in as many aspects as he/she can think of... **dressing, eating, acting**, no matter how extravagant (or, instead, conformist!) they might be.

Inside the group, the teen is accepted as he/she is... **a person(ality) + a body**.

The need of being accepted – by the group and by the entire world – is such a disorienting emotion that the teen rarely feels “right” → **one more thing teens should be aware of!**

**If you are not perfect, you are not accepted.
If you are not accepted, you are not loved.**

Some tips for everybody

- **In the family:**

- Examples, not words!
- Give and keep rules (first: for themselves!)
 - Rules are needed as much as they are fought by the adolescent .
 - A teen with no rules is like a vagabond in the desert: he doesn't know where to go
 - Rules are made to be broken (especially by teens!) but they mean that there is a pathway: you can leave it ...AYOR!

- **In the school:**

- If there is a canteen, there are several strategies that can be used
 - The most effective one, proven 30 years ago in Brazil + USA, is to make unhealthy food possible but difficult or long-lasting to get, while making healthy choices easily available. Teaching the winning behaviour to the personnel is fundamental

Some tips for everybody

- **In the school:**
 - If there are vending machines
 - Substituting unhealthy foods with healthier ones is the best strategy found ...till now
- **With Peers:**
 - Take advantage of teens' keenness to technology
 - Apps and social can be a winning strategy to catch a teen's interest
- **At the doctor's:**
 - Doctors are experts, not teachers ...at least not with teens (enough of them at school!)
 - Being teachers without teaching, an expert without stressing to be an expert
 - Listening much more than speaking
 - Asking for shared strategies, instead of dictating them

Thanks !!!

