



ΔΗΜΟΚΡΙΤΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΘΡΑΚΗΣ | DEMOCRITUS
UNIVERSITY
OF THRACE

Helping Active Lives through
Targeting Healthy Youth



Helping Active Lives through Targeting Healthy Youth



Ι Δ Ρ Υ Μ Α
Κ Ρ Α Τ Ι Κ Ω Ν
Υ Π Ο Τ Ρ Ο Φ Ι Ω Ν
IKY

Erasmus+

"This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein"

Co-funded by the
Erasmus+ Programme
of the European Union



Obesity Related Diseases

Theodoros Xanthos MD, MSc, PhD, FAcadMed, FHEA, FCP, FESC, FERC, ERT

Professor Physiology & Pathophysiology

Program Coordinator MD Undergraduate Program

Program Coordinator MSc Program Gerontology

School of Medicine

European University Cyprus



Childhood Obesity

- **Important Public Health issue**
- **Has led to significant emergence of diseases**
- **Affects the lives of children**
- **The condition is transferred to adulthood (severe obesity or strong family history of obesity)**



ΔΗΜΟΚΡΙΤΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΘΡΑΚΗΣ

DEMOCRITUS
UNIVERSITY
OF THRACE

Helping Active Lives through
Targeting Healthy Youth



What is Childhood obesity?

- BMI (>2years old)
- BMI is not accurate (overestimation in some Children, underestimation in other adults)

**CDC/National Center
for Health Statistics growth references for
children 2 years and older**

- **Overweight**
- **Obesity**
- **Severe obesity**

Prevalence

- **The prevalence of overweight or obesity increases with advancing age:**
- **22.8% of preschool children (age, 2-5 years),**
- **34.2% of school-aged children (age, 6-11 years),**
- **and 34.5% of adolescents (age, 12-19 years)**

Etiology of Childhood obesity

- **Environmental Factors**
- **Genetic Factors**
- **Endocrine Disorders**
- **Sleep**
- **Medications**
- **Hypothalamic Obesity**

Environmental factors



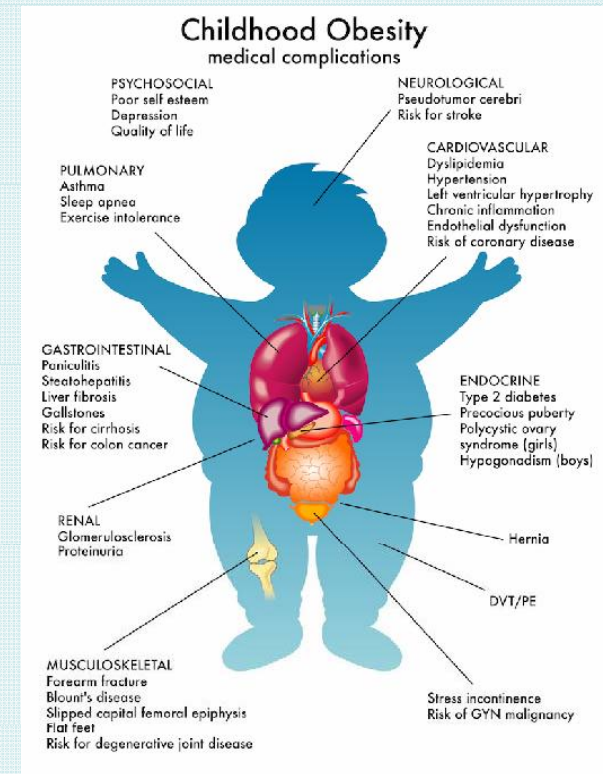
Comorbidities

- **Obesity affects all systems**
- **T2DM**
- **Lipids disorder**
- **Obstructive Sleep Apnea**
- **Steatohepatitis**

The severity of the comorbidities is associated with the degree of obesity

Cardiometabolic and Cardiovascular

- Prediabetes
- T2DM



The prevalence of Prediabetes and T2DM varies with the severity of obesity, race, ethnicity and age of the child

Endocrine



- **Early onset of sexual maturation in girls**
- **In boys: gynecomastia**

Pulmonary

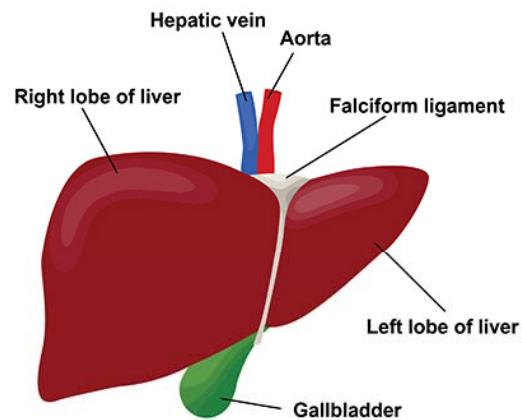
- **Higher Prevalence of Obstructive Sleep Apnea (OSA)**
- **Severity of OSA increases with increased obesity**
- **Obesity is associated with asthma**

Gastrointestinal

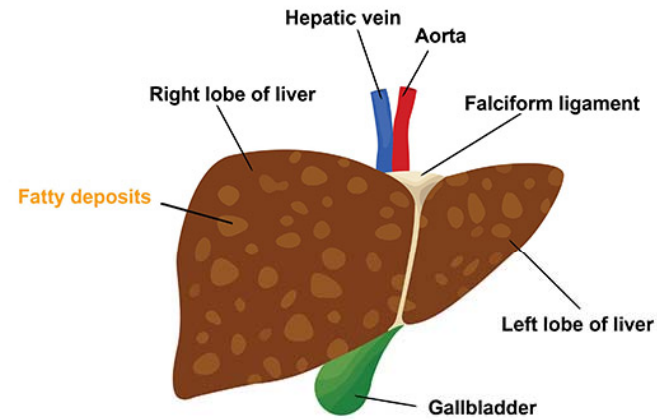
Nonalcoholic fatty liver disease (NAFLD)

HEALTHY AND FATTY LIVER

NORMAL LIVER



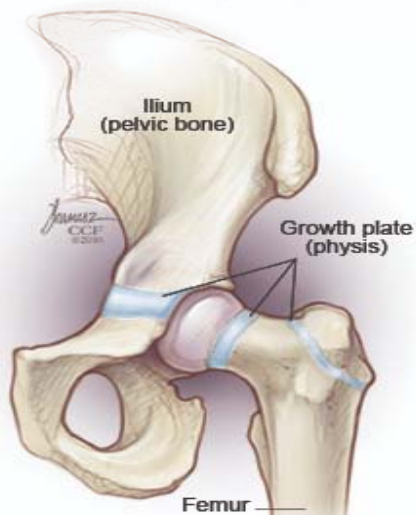
FATTY LIVER DISEASE



Musculoskeletal

- Impairment in mobility
- Increased prevalence of fractures
- Lower extremity pain and mal-alignment

Slipped Capital Femoral Epiphysis (SCFE)



Dermatologic



Easily available resources

<https://www.choosemyplate.gov/>

<https://mainehealth.org/lets-go>

Easily accessed by the younger generation and preliminary data show significant weight loss when compared to no internet intervention

How Can Physical Activity Be Promoted Among Children and Adolescents? A Systematic Review of Reviews Across Settings

Sven Messing^{1}, Alfred Rütten¹, Karim Abu-Omar¹, Ulrike Ungerer-Röhrich², Lee Goodwin¹, Ionuț Burlacu¹ and Günther Gediga³*

- **Parents play a key role for any successful intervention**
- **Multi-component interventions proved to be effective in any school setting**
- **For Childcare facilities, interventions should be theory or model based and include teacher training**
- **In Schools increase the quantity and quality of PE lessons**



A white, hand-drawn style thought bubble sticker is centered on a textured, light brown corkboard background. The sticker has a soft, irregular shape with a small tail at the bottom. Inside the bubble, the words "Thank you!!" are written in a bold, black, sans-serif font. The word "Thank" is on the top line, and "you!!" is on the bottom line, slightly indented to the right.

Thank
you!!