

## Wellness Matters: Breaking down barriers and building foundation for success



Jessica Hock PT, DPT



## Objectives

- To identify the Center for Disease Control's recommendations of physical activity levels
- To identify the deficits noted between recommendations of physical activity and reported compliance
- To address potential patient barriers to compliance
- To provide strategies to increase the youth's activity levels
- To provide resources for the pediatric patient population in order to increase physical activity levels



## About me & my passion

- University of Dayton Campus Recreation

UNIVERSITY of  
**DAYTON**  
Campus Recreation



## About me & my passion

- CHAARG (changing health, attitudes, and actions to recreate girls)



## Patient Quotes



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- “I walk to/from the couch to fridge to get a snack, does that count?”



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- “I walk to/from the couch to fridge to get a snack, does that count?”
- “I walk to/from classes at school”
- “Fortnite?”



## Let's get to know each other

- Athletic Trainer



## Let's get to know each other

- Athletic Trainer
- Physical Therapist or Physical Therapist Assistant



## Let's get to know each other

- Athletic Trainer
- Physical Therapist or Physical Therapist Assistant
- Student



## Let's get to know each other

- Athletic Trainer
- Physical Therapist or Physical Therapist Assistant
- Student
- Other?



## Healthcare Providers

- Do we discuss this topic with patients?
  - At initial evaluation?
  - Follow ups?
- Do we provide physical activity counseling?
- Suggest resources?



## APTA's Vision Statement

“Transforming society by optimizing movement to improve the human experience”



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“Movement is a key to optimal living and quality of life for all people that extends beyond health to every person's ability to participate in and contribute to society. The complex needs of society, such as those resulting from a sedentary lifestyle, beckon for the physical therapy profession to engage with consumers to reduce preventable health care costs and overcome barriers to participation in society to ensure the successful existence of society far into the future.”



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## Prevalence of Childhood Obesity



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**~ 1 in 5 children**

Skinner, 2018



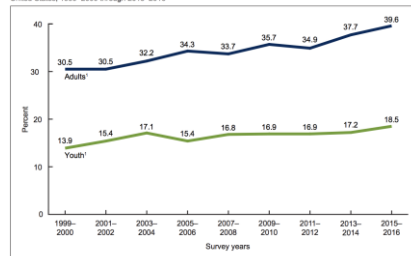
## Obesity Classification

BMI	Classification
<18.5	Underweight
18.5-24.9	Normal weight
25.0-29.9	Overweight
30.0-34.9	Class I obesity
35.0-39.9	Class II obesity
≥40.0	Class III obesity



## Obesity Epidemic

Figure 5. Trends in obesity prevalence among adults aged 20 and over (age adjusted) and youth aged 2-19 years: United States, 1999-2000 through 2015-2016



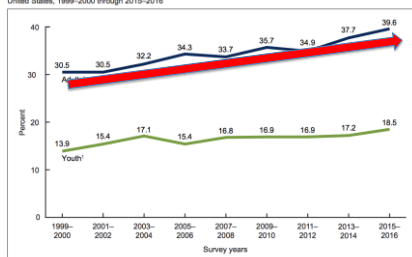
Significant increasing linear trend from 1999-2000 through 2015-2016.  
NOTES: All estimates for adults are age adjusted by the direct method to the 2000 U.S. census population using the age groups 20-39, 40-59, and 60 and over.  
Source: CDC, National Health and Nutrition Examination Survey, 1999-2016.

Center for Disease Control  
and Prevention, 2017



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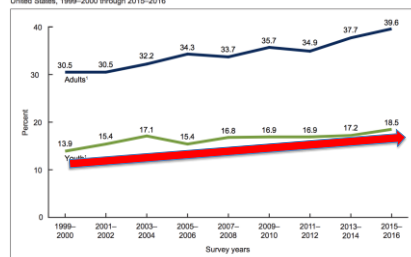
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Center for Disease Control  
and Prevention, 2017



## Youth Sport Participation

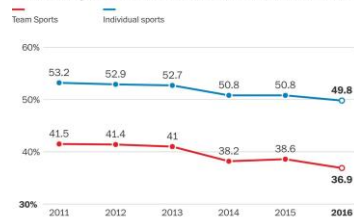
Bogage, 2017



## Youth Sport Participation

### Youth sports participation keeps dropping

The percent of children who play team or individual sports on a regular, or "core," basis continues to fall. Almost 45 percent of kids played a team sport regularly in 2008, according to Aspen Institute data. Now only about 37 percent of kids do.



Bogage, 2017

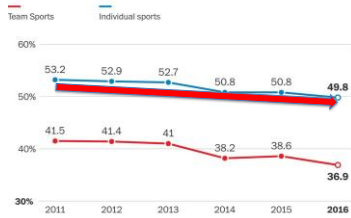
Source: Sports & Fitness Industry Association, Aspen Institute.  
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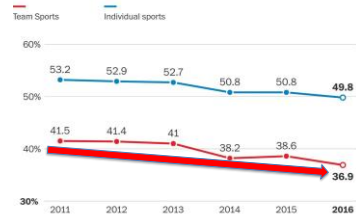
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- Overweight or obese
  - 41.5% of 16-19 year olds

Skinner, 2018



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- Older adolescent females
  - Overweight percentage increase from 36% to 48%



Skinner, 2018



## Obesity Epidemic

- Overweight or obese
  - 41.5% of 16-19 year olds
- Older adolescent females
  - Overweight percentage increase from 36% to 48%
- 2 to 5 year olds
  - Increase in prevalence of class 1 obesity, especially males

Skinner, 2018



## Obesity Epidemic

- Born year 2000 or later
  - 1 in 3 chance of developing diabetes

Skinner, 2018



## Obesity Epidemic

- Born year 2000 or later
  - 1 in 3 chance of developing diabetes
- Obesity in adolescents → adulthood → ↑ risk of morbidity and mortality

Skinner, 2018



## Obesity Epidemic

- Daily PE requirements
  - **Only 8%** of elementary schools
  - **<7%** of HS and MS



Cochran





## Obesity Epidemic

- Daily PE requirements
  - **Only 8%** of elementary schools
  - **<7%** of HS and MS
- Physical activity
  - Only **50%** of children (12-21 yo) regularly participate in rigorous physical activity
  - **25%** of children (12-21 yo) report no physical activity

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## Obesity Epidemic

- Daily PE requirements
  - **Only 8%** of elementary schools
  - **<7%** of HS and MS
- Physical activity
  - Only **50%** of children (12-21 yo) regularly participate in rigorous physical activity
  - **25%** of children (12-21 yo) report no physical activity
- TV
  - Average child spends **2 hours a day** watching
  - **26%** of children watch **≥ 4 hours per day**



...Cochran



## Physical Activity Levels

- Self reported PA level in student athletes at pre-participation physical evaluations
  - **<7%** of HS and MS athletes reported 60 min MVPA daily

...Valasek, 2018



## Physical Activity Levels

- Self reported PA level in student athletes at pre-participation physical evaluations
  - **<7%** of HS and MS athletes reported 60 min MVPA daily
  - Only **27% met** weekly recommendation of 420 min per week

...Valasek, 2018



## Physical Activity Levels

- Self reported PA level in student athletes at pre-participation physical evaluations
  - **<7%** of HS and MS athletes reported 60 min MVPA daily
  - Only **27% met** weekly recommendation of 420 min per week
  - MS more variety of PA and less sports specialization

Valasek, 2018



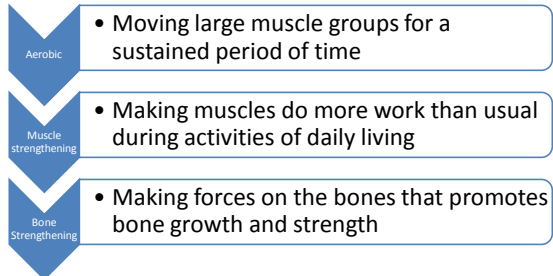
## Center for Disease Control Recommendations

- 60 minutes of moderate to vigorous intensity every day
  - 420 minutes per week
- Including aerobic, bone and muscle strengthening

Centers for Disease Control and Prevention, 2019



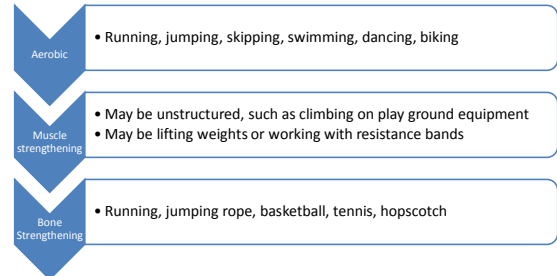
## Center for Disease Control Recommendations



Centers for Disease Control and Prevention,  
2019



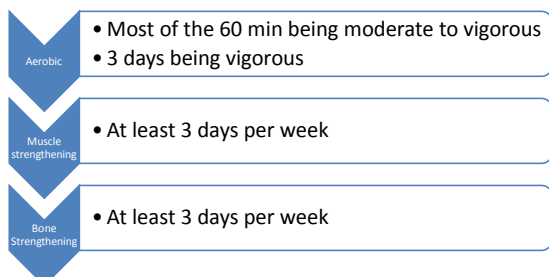
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Centers for Disease Control and Prevention,  
2019



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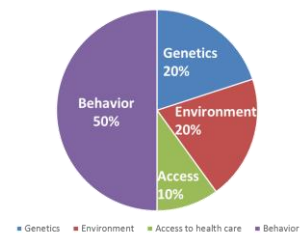


Centers for Disease Control and Prevention,  
2019



## Contributing Factors

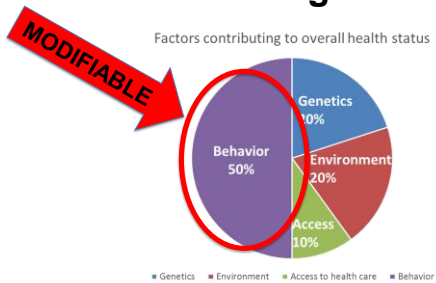
Factors contributing to overall health status



Sallis, 2015



## Contributing Factors



Sallis, 2015



## How do we apply this in the clinic?



## Patient Case

- 17 yo female
- Low to mid back pain
- PMHx: adolescent idiopathic scoliosis, depression, adjustment disorder with anxiety, fibromyalgia
- Treated by PT many times in the past, failing conservative measures
- Most recently s/p T10-L2 posterior spinal fusion pontine osteotomy for kyphosis on 11/6/18
- Online schooling
- Loves her animals
- Future career aspirations of being a vet

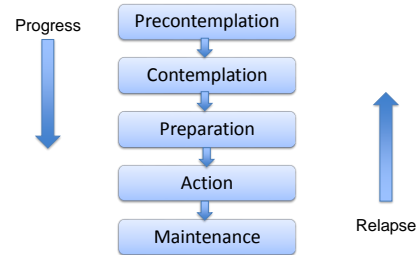


## Build the Foundation

- Provide education
- Assess readiness to change



## Transtheoretical Model



Exercise is Medicine,  
2019



## Goal setting

- Start small
- Hobbies/interests



## Goal Setting

**S**pecific

Exercise is Medicine,  
2019



## Goal Setting

Specific  
Measureable

Exercise is Medicine,  
2019



## Goal Setting

Specific  
Measureable  
Achievable

Exercise is Medicine,  
2019



## Goal Setting

Specific  
Measureable  
Achievable  
Realistic

Exercise is Medicine,  
2019



## Goal Setting

Specific  
Measureable  
Achievable  
Realistic  
Time

Exercise is Medicine,  
2019



## Provide the Support

- Check in on progress toward goals
- Positive encouragement
- Progress goals



## YOUTH EMPOWERMENT

Muturi, 2018



## Youth Empowerment

- Empowerment definition  
“a process through which people can take control over their lives so they can make decisions to improve their existing state”

Muturi, 2018



## Youth Empowerment

- Significantly influences adolescents'
  - Self efficacy
  - Perceptions for healthy food choice
  - Healthy eating
  - Attitudes toward physical activity
  - Overall motivation for health

Muturi, 2018



## Working through barriers

- Homework



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- Time



## Working through barriers

- Homework
- Time
- Weather

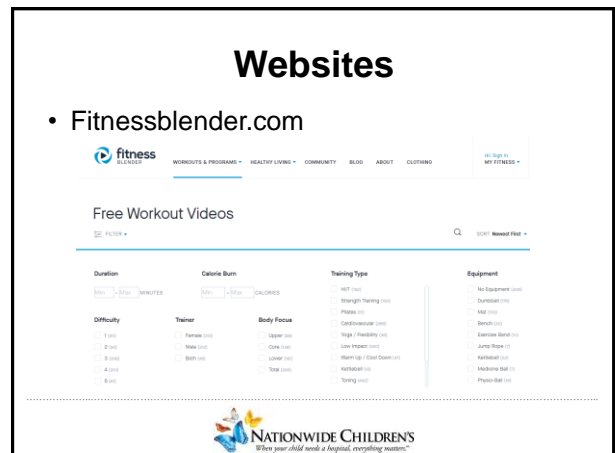
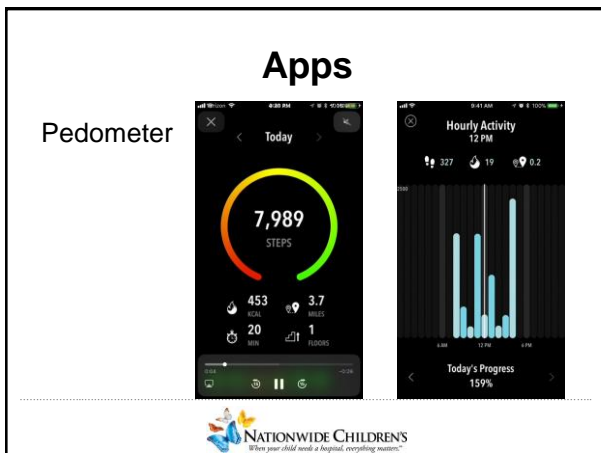
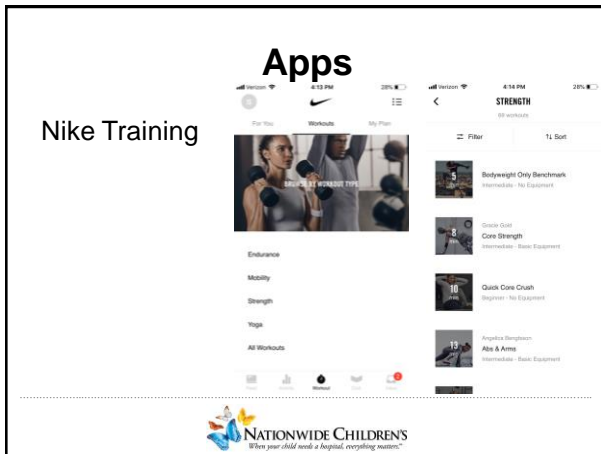


## Working through barriers

- Homework
- Time
- Weather
- Electronics









## References

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## Questions?



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