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Lecture Summary for

## Physical Activity for children

How to Strike a Healthy Balance

Dr. Meredith Hershey Perny, PT, DPT, OCS

### Why Physical Activity for Children??

#### Cardiovascular Health

- Increases heart strength
- Keeps weight down
- Decreases risk of diabetes
- Increases good cholesterol
- Decreases Blood Pressure

#### Bone Health

- Calcium
- Vitamin D
- Physical Activity
- \*Peak years for increasing bone density are just before and during puberty
- \*90% of peak bone mass obtained by age 18

#### Mental Health

- Physical Activity is comparable to psychosocial interventions for depression and anxiety
- Moderate to vigorous physical activity levels predict fewer depressive disorders 2 years later
- Physical Activity is associated with increased self-confidence and self-esteem

Foundations for Healthy Growth and Aging

### Maintaining Health

- Requires a balance between sleep, nutrition and physical activity
- All other activities in life rely on this balance being maintained

### What is Physical Activity??

Endurance

Balance

Flexibility

Strength

>

**SPORTS**

### OVER EXERCISING

#### SHORT TERM:

Heat Exhaustion: Dizziness, fast/weak pulse, muscle cramps, excessive sweating, nausea/vomiting

-Keep kids hydrated

-Teach them the signs and have them speak up to coaches if need be

Heat Stroke: A Medical Emergency

-Headache, possibly unconscious, lack of sweating, nausea/vomiting, hot, dry skin, internal temperature > 103. CALL 911



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#### LONG TERM:

##### OVER-USE INJURIES

Overuse injuries are responsible for nearly half of all sports injuries to middle and high school students

**=50% are PREVENTABLE**

##### TISSUES INVOLVED

Muscle, Ligament, Tendon, bone, and/or Growth Plates

Uneven Growth pattern in children (Bone before tendon/muscle) can cause length tension changes and increase susceptibility to injury compared to an adult

Growth Plates are weaker than tendons and ligaments => put them at risk of injury

In worst case scenario can alter bone growth

##### Signs and Symptoms of Over Use Injuries

Pain that is not tied to an acute injury. Often worsens with activity

Swelling

Changes in form and technique

**WE ARE SEEING A RISE IN OVERUSE INJURIES** due to early specialization, playing one sport year round, and playing on multiple teams at the same time.

In May 2017, American Journal of Sports Medicine reported that young athletes who participated in **one sport >8mo** per year were more likely to report an over use injury.

American Academy of Pediatrics found that "burnout, anxiety, depression and attrition were all increased in early specializers"

##### How To Minimize Injury

Take time off, at least 1 day per week

Don't specialize, no one sport > 8mo per year

Know your coaches

Maintain Fitness

Wear Appropriate Gear

Avoid Multiple teams in the same season

##### Female Athlete Triad (Can be in males too)

Low Energy intake with or without disordered eating

Menstrual Irregularities (females only)

Low Bone Mineral Density

Fertility Issues

## Under Exercising

### Obesity

Overweight = BMI >85% <95%

Obese = BMI > 95%

Obesity rates in children have **TRIPLED** since the 1970's

\*Overall decline in activity (not walking to school, etc.)

\*Youth sports have actually contributed to the decline by making many options financially impossible (travel teams, etc.) for families while at the same time neighborhood teams and play have declined.

\*In the US, **60-70%** of children do not meet the recommended doses of physical activity



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Impacted by:

Genetics, metabolism, community and neighborhood design, food choices, physical activity, short sleep duration

Improved through:

Careful selection of appropriate physical activity

Review of nutrition and counseling in healthy options

Honest look at and treatment of emotional impacts/causes

Family and community support

**SKINNY DOES NOT EQUAL HEALTHY**

Don't fall into the trap of thinking that just because you or your child is skinny you don't need physical activity

Change body image from how you look to how you feel and function

**'NOT BEING ATHLETIC' isn't an excuse**

A good PT can assess a child or adult who 'isn't athletic' and find areas of weakness or imbalance and design programs to address those areas and increase self-confidence.

Remember Physical Activity is more than sports

Walking, yard work, dancing, building activities are all physical activity

## How To Maintain a Healthy Balance

**SET PRIORITIES** with a focus on maintaining good health

Sleep

6-13 year olds.....9-11 hours per night

14-18 year olds.....8-10 hours per night

Nutrition

Watch sugar intake

Eat a variety of fresh foods including protein, fruits, vegetables, whole grains and dairy

Avoid processed foods

Listen to your body and be mindful of cravings and how you feel after you eat certain foods

Moderation is key

Physical activity

60 minutes per day of moderate to vigorous physical activity for children

3 days per week of bone-building activities (not biking or swimming)

**BE MINDFUL**

Journal or have family discussions linking function and feelings to food choices, exercise choices, or inactivity, etc.

Be mindful of how schedules are impacting family function, individual or family stress levels

**MAINTAIN PERSPECTIVE**

These are our children. To them, whiffle ball in the back yard with family can be even better



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than

the local Little League playoffs.

Their little bodies are growing and learning every day. They don't need to be professional athletes.

\*Our goal is to raise healthy, independent adults. Teaching them healthy habits for life should be the driving force behind decision making.

#### MODEL HEALTHY BEHAVIOR

Find time for your own physical activity, healthy sleep habits and healthy eating habits

Discuss your choices with your children

#### References

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**HAVE QUESTIONS OR WANT MORE INFORMATION?**

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