

# The Importance of ADHD in Children

Helping the Children Succeed  
and the Parents Survive

# Three different types

- Predominately hyperactive and impulsive
  - Predominantly inattentive
    - Combined

# Not a new phenomenon

- Dr. George Still - 1902
- 1919 - Survivors of the flu develop encephalitis, hyperactivity
- Minimal brain dysfunction, hyperkinetic reaction of childhood
- 1955 - Ritalin approved by the FDA
- 1980 - First listed in the DSM
- 2003 - First non-stimulant drug approved by the FDA

# Hyperactivity

- Fidgeting and squirming
- Getting up and moving around
- Constantly on the go
- Talking non-stop
- Trouble waiting turns
- Interrupting/intruding on games or conversations



# Inattentiveness



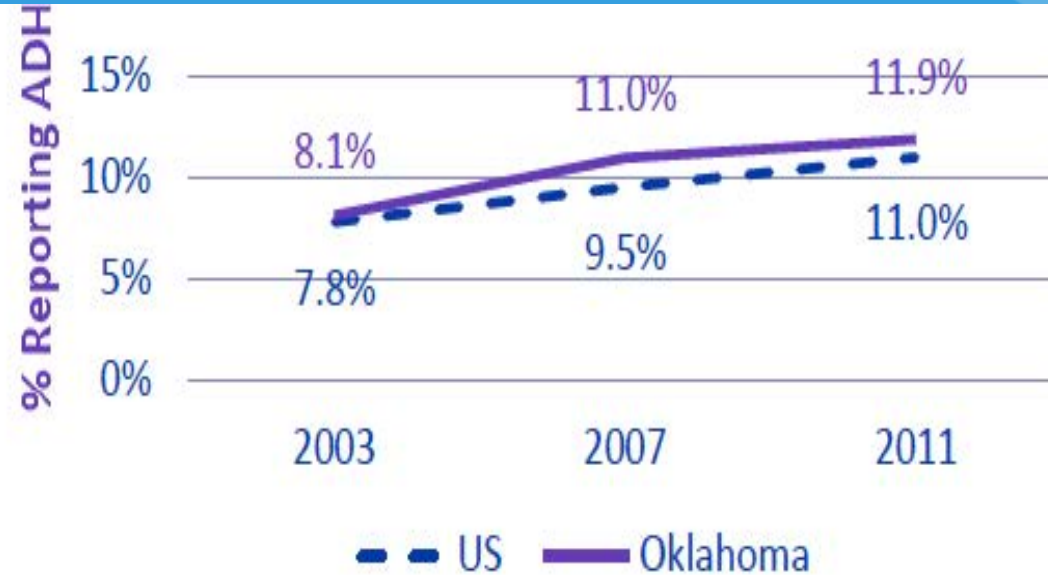
- Fails to follow instructions, careless mistakes
- Seems not to listen
- Fails to finish schoolwork or chores
- Easily distracted
- Forgetful in daily chores or duties
- Problems organizing tasks or activities

# Why is my child like this?

- Genes
- Cigarette smoking, alcohol or drug use during pregnancy
- Exposure to environment toxins at a young age
- Low birth weight
- Brain injuries

# Oklahoma Statistics

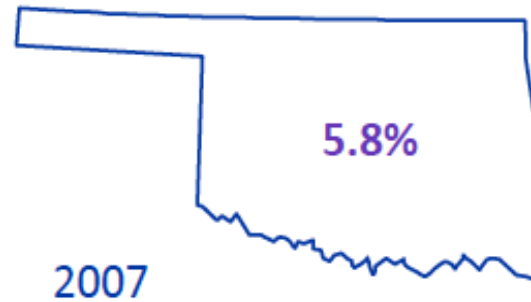
Has a doctor or health care provider ever told you that your child had attention-deficit/hyperactivity disorder or attention deficit disorder (ADHD or ADD)?



# Oklahoma Statistics

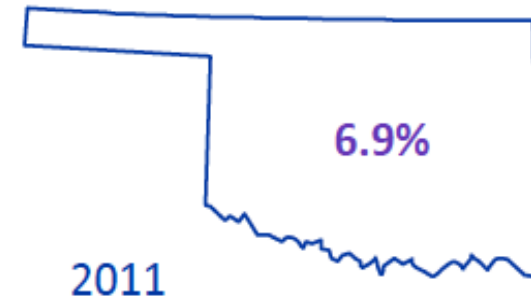
Is your child **currently**  
taking medication for ADHD  
or ADD?

In 2007, 4.8% of US children and 5.8% of children in Oklahoma were taking medication for ADHD.



Among all US states, Oklahoma ranked 17<sup>th</sup> highest.

In 2011, 6.1% of US children and 6.9% of children in Oklahoma were taking medication for ADHD.



Among all US states, Oklahoma ranked 19<sup>th</sup> highest.

\* The National Survey of Children's Health is conducted by CDC and sponsored by the Maternal and Child Health Bureau, HRSA: [www.cdc.gov/nchs/slait/nsch.htm](http://www.cdc.gov/nchs/slait/nsch.htm)



# *Where do we start?*

Past medical  
history

Family history

Social history

Physical exam



# Past Medical History

- Sex
- Age of onset
- Symptoms present in two or more situations
- Cause significant disruptions in social, school or home situations
- Screen for medications that may impact the behavior
- Symptoms not otherwise explained by other mental health concerns

# A Good Family History



- Family mental health diagnoses
- Drug or alcohol abuse
- Divorce, illness, death
- Disorganization in the family
- Assessment of stress levels

# *Social history is important!*

- Home and family interactions
- Problems with the legal system
- School performance
- Social skills
- Work performance
- Abuse of substances

# The Physical Exam

- Vital signs
- General appearance
- Assessment of mental status
- Other medical conditions



# Consider other testing

Drug screening

Thyroid stimulating hormone (TSH)

Liver function tests

Vision or hearing testing

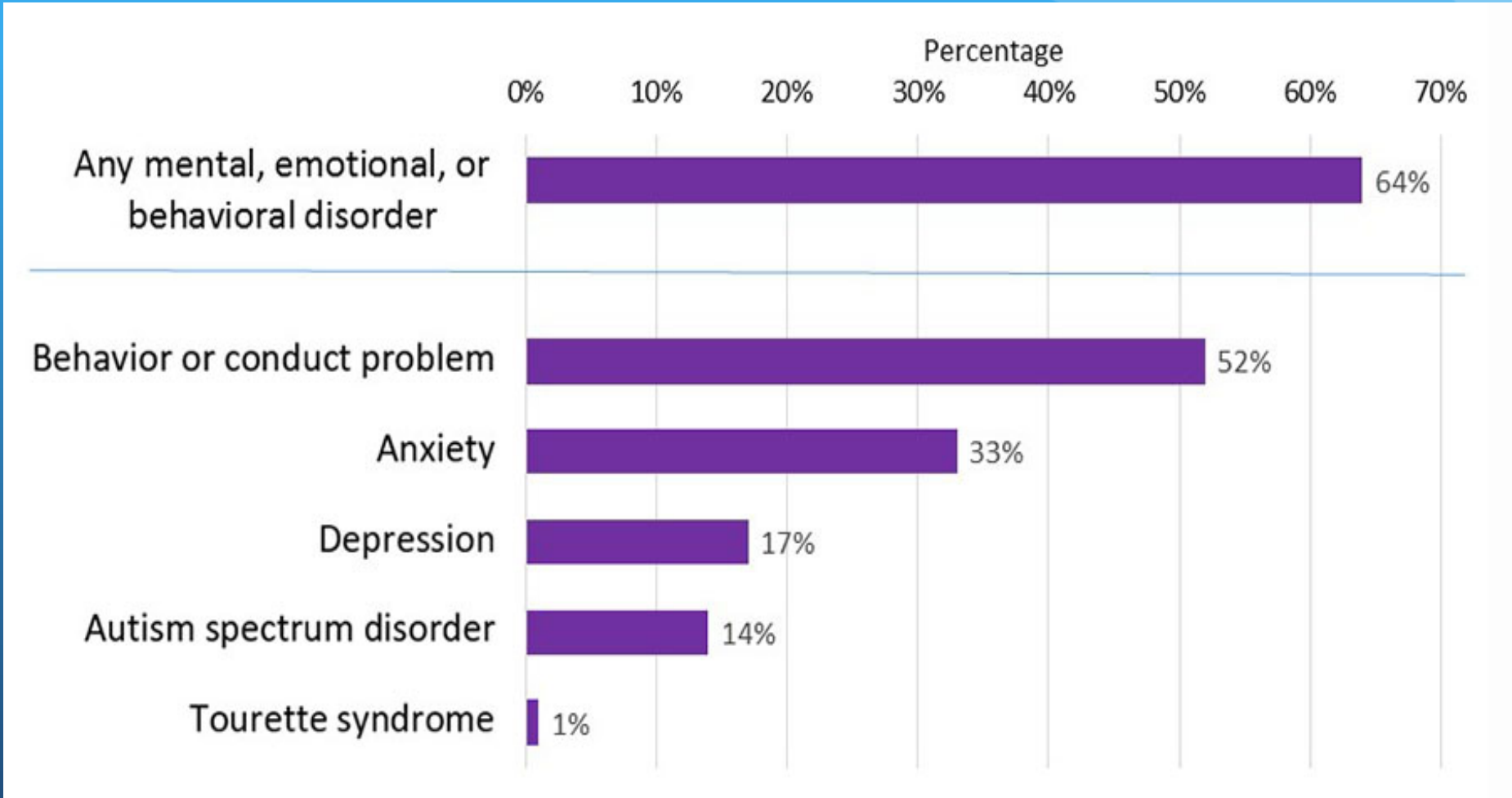
ECG

MRI scan of the brain



# Conditions that can imitate ADHD

- Bipolar disorder
- Asperger syndrome
- Conduct disorders
- Oppositional defiant disorder
- Obsessive compulsive disorder
- Learning disorders
- Generalized anxiety disorder
- Sleep disorders
- Separation anxiety and school refusal
- Nightmare disorder
- Hearing or vision deficits





# Psychometric and Educational Testing is a Must

- Connors Teacher and Parent Rating Scale
- Brown Attention Deficit Disorder Scale (BADDSS)
- Nadeau/Quinn/Littman Self Rating Scale
- Learning disability evaluation (IQ vs. achievement)
- Connors Continuous Achievement (CPT)
- Integrated Auditory and Visual (IVA) CPT

# It's Time to Intervene



- Educational and behavioral intervention
- Activity
- Diet
- Screen time
- Sleep
- Medications

Medications can be useful

Stimulants

Non-stimulants

Anti-depressants

# *Stimulants -First line*

- FDA Schedule II Drugs
- Cousins to Amphetamine
- Side Effects Common
- Varying Effects on Co-morbid Conditions
- Potential for Abuse



# Stimulant medications

- Dextroamphetamine (Dextrostat, Dexedrine)
- Methylphenidate (Concerta, Aptensio XR, Ritalin)
- Combination dextroamphetamine and amphetamine (Adderall, Mydaylis)
- Dexmethylphenidate (Focalin)
- Lisdexamfetamine (Vyvanse)
- Amphetamine (Evekeo)

# Alpha 2 - Antiadrenergic Agents

- Mechanism of action unknown
- Can be useful as monotherapy or as an adjunct
- Can help with sleep, tics
- Side effects
- Rare cases of ventricular fibrillation or sudden death
- Extended release clonidine (Kapvay)
- Guanfacine (Intuniv)

# Selective Norepinephrine Reuptake Inhibitors (SNRIs)

- Atomoxetine (Strattera)
- Can be used as monotherapy or as an adjunct
- Side effects - stomach upset, tiredness
- Maximum effect can take up to eight weeks
- 5-10% are poor metabolizers
- Increased risk of suicidal ideation

# Antidepressants

Imipramine (Tofranil)

Desipramine (Norpramin)

Bupropion (Wellbutrin)







Now what do we do?

# Monitoring your patients

- Grades
- Teacher reports
- Parental assessments
- Vital signs
- Reassess your dosage
- Consider psychotherapy, family counseling

# Educate your parents!

- Parents should understand the prescribed medication
- Parents should understand the treatment goals
- Involve the teachers, administrators
- Inform about state and local resources, support groups
- Provide educational materials
- Let parents know you care.

# *Help at Home*

- Stay calm
- Set up routines
- Provide positive reinforcement
- Be consistent with rules
- Be clear
- Take the good with the bad
- Include other adults in the child's care

# What happens to these kids?



Prognosis can be excellent

Half can have impulsivity,  
inattentiveness as adults

Scholastic challenges

Occupational challenges

## *Where to Find Out More Information*

- ADHD Coaches Organization (ACO) [adhdcoaches.org](http://adhdcoaches.org)
- Attention Deficit Disorder Association (ADDA) [add.org](http://add.org)
- Children and Adults With Attention Deficit/Hyperactivity Disorder (CHADD)  
[chadd.org](http://chadd.org)
- National Institute for Mental Health [nimh.nih.gov](http://nimh.nih.gov)
- The Substance Abuse and Mental Health Services Administration  
[samhsa.gov](http://samhsa.gov)