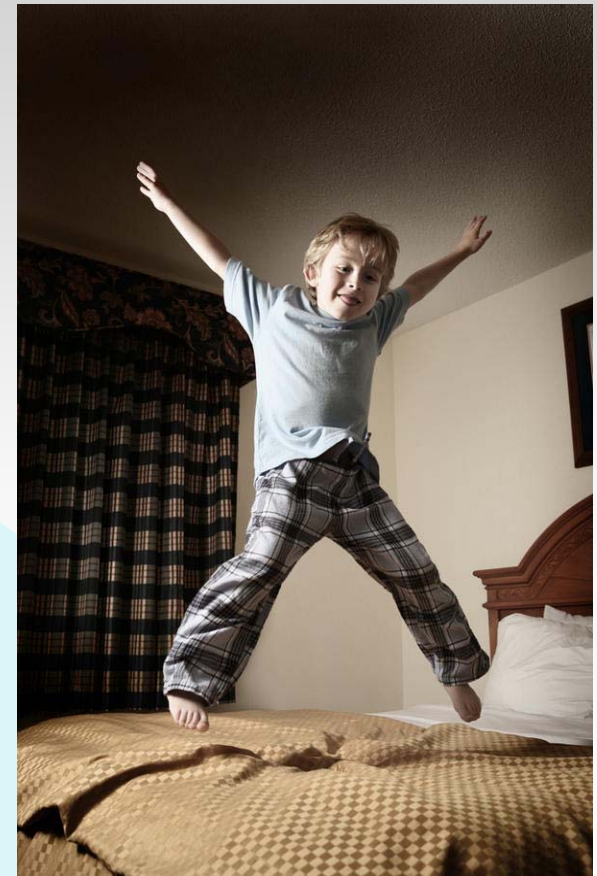


# The 14 Best Principles for Managing the Child or Teen with ADHD

**Russell A. Barkley, Ph.D.**  
Clinical Professor of Psychiatry  
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[ADHDLectures.com](http://ADHDLectures.com)**

# What is ADHD?



# What is ADHD?

- ⦿ A disorder of developmentally inappropriate degrees of:
  - > inattention and/or
  - > hyperactive-impulsive behavior
- ⦿ Onset in childhood
- ⦿ Relatively persistent & pervasive
- ⦿ Creates significant impairment in major life activities
- ⦿ Not due to PDD, severe MR, psychosis, etc.

# Underneath, It's Really A Disorder of Self-Control



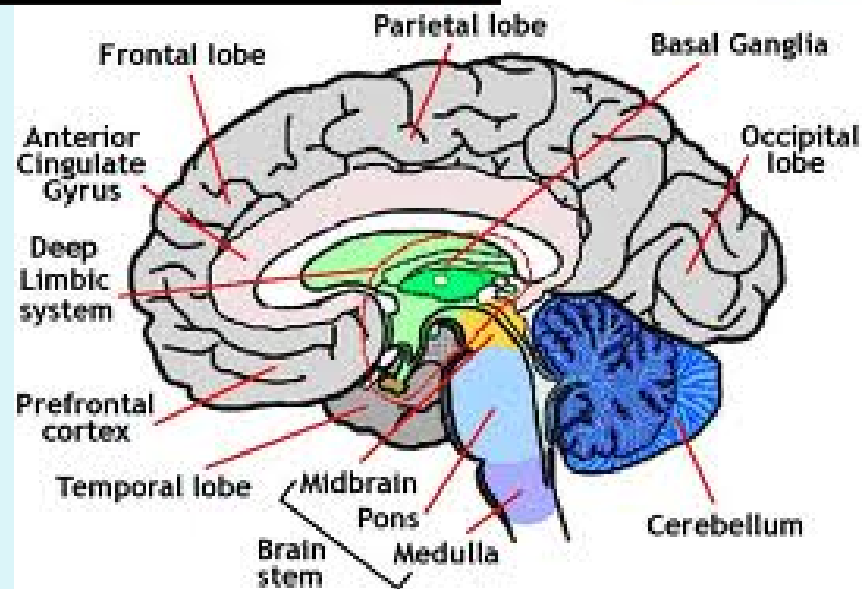
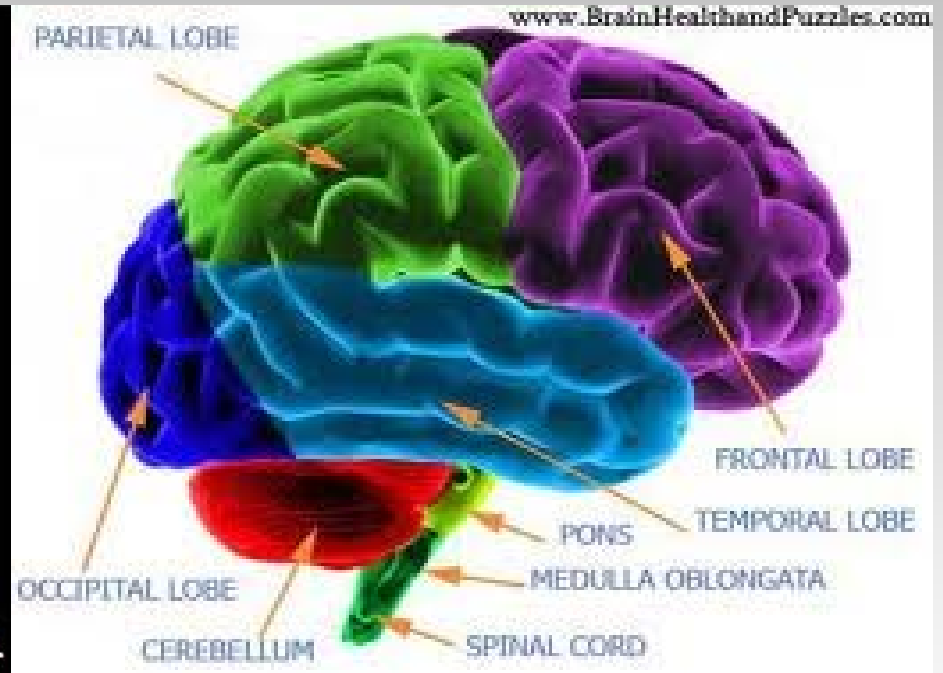
# Problems with executive abilities

- ◉ Self-awareness (the mind's mirror)
- ◉ Inhibition (the mind's brakes)
- ◉ Visual imagery (the mind's eye)
- ◉ Internal speech (the mind's voice)
- ◉ Emotional control (the mind's heart)
- ◉ Self-motivation (the mind's fuel tank)
- ◉ Planning and problem-solving (the mind's playground)

# What Causes ADHD?

- ⦿ Neurology and Genetics
- ⦿ Interacting with Environmental Biohazards

# The Neurology of ADHD



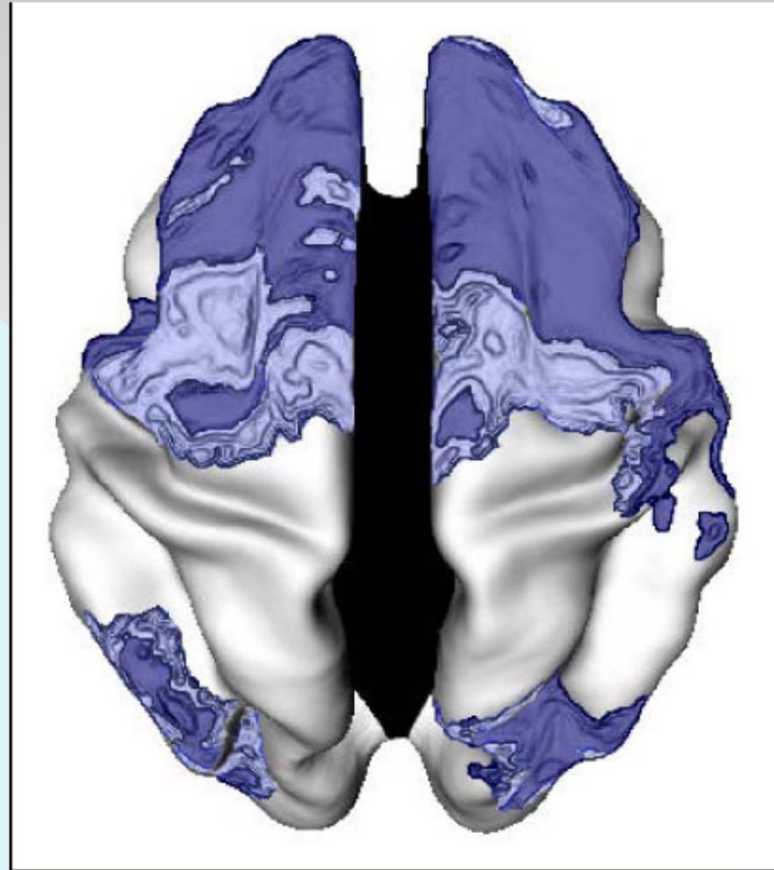
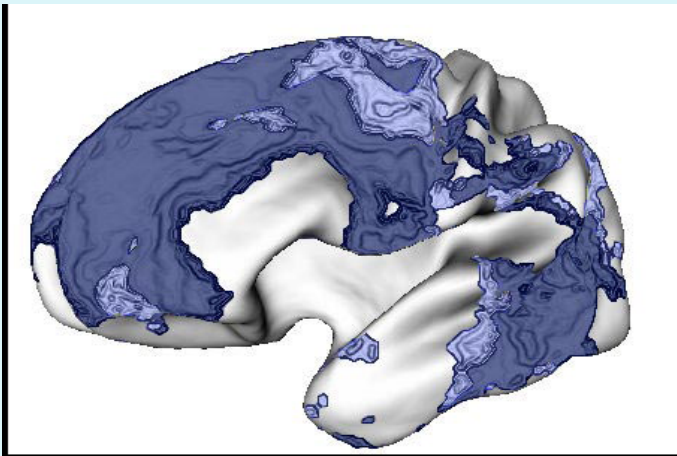
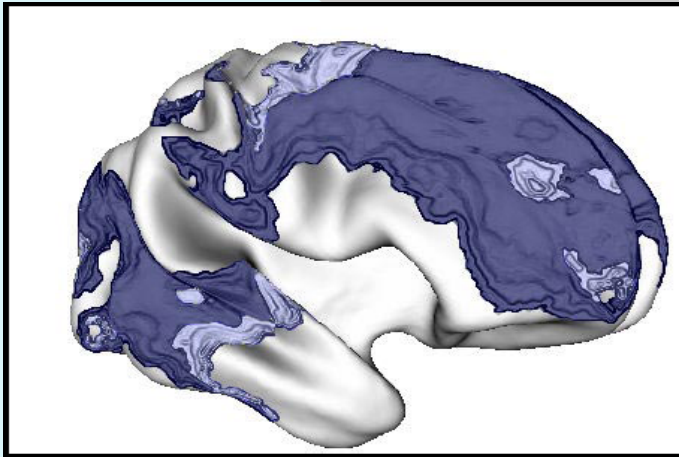


# Delayed brain growth in ADHD

(approx. 2-3 yrs. – the darker the color the greater the delay in this brain region)

From Shaw, P. et al. (2007). ADHD is characterized by a delay in cortical maturation.

*Proceedings of the National Academy of Sciences, 104, 19649-19654.*



Ns: ADHD=223; Controls = 223



Greater than 2 years' delay  
0 to 2 years delay



It's a Highly Genetic Disorder



# The Genetics of ADHD

- **Heredity:** If a child has ADHD, the risk of ADHD to other family members is:
  - › Siblings: 25-35%                      Twin: 75-92%
  - › Mother: 15-20%                      Father: 20-30%
  - › Offspring of an adult with ADHD: 27-54%
- **Genetic Contribution**
  - › Differences in genes account for 70-80% or more of the differences among people in their degree of ADHD symptoms
  - › There is no contribution of the rearing environment (shared among siblings) to ADHD
  - › But unique events (that happen only to one child) can also contribute to risk for ADHD (such as pregnancy problems)
- **Many (25-40+) ADHD risk genes have been found:**
  - › These genes appear to regulate brain growth, how nerve cells migrate and connect to others, and production of and sensitivity of nerve cells to brain chemicals known as neurotransmitters
  - › Each gene contributes a small risk to the disorder
  - › Family members have some of these genes and show some of the traits of ADHD but often not enough to have the full disorder
  - › The more risk genes a child has, the greater the risk for having the full disorder of ADHD
  - › ADHD genes can also interact with toxins, especially during pregnancy, to increase risk for ADHD further

# Acquired Cases: Prenatal (25%)

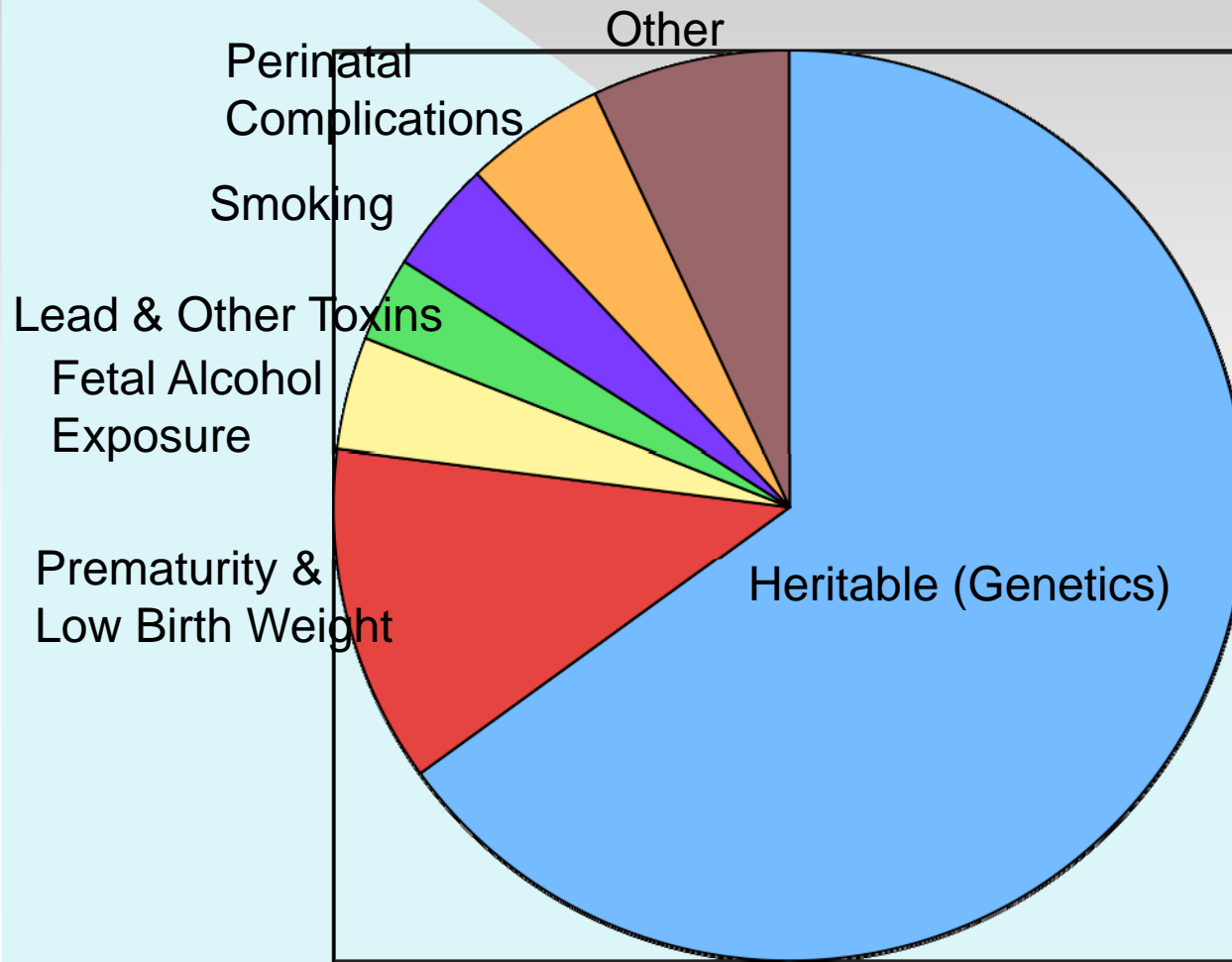
- Maternal smoking in pregnancy (odds 2.5)
- Maternal alcohol drinking in pregnancy (same)
- Prematurity of birth, especially if brain bleeding (45%+ have ADHD)
- Maternal urinary tract infections and pre-eclampsia
- Total increased pregnancy & delivery complications
- Maternal pre-pregnancy obesity (?)
- Maternal hypertensive disorders in pregnancy (odds ratio = 1.29)
- Maternal high phenylalanine levels in blood (?)
- High maternal anxiety in second trimester (?)
- Perinatal Pitocin exposure (increased risk 2x)(?) (Arguable)
  - › Large Danish study of 27,000+ children failed to find this association
- Maternal prenatal ingestion of acetaminophen for 22+ days
  - › Paternal use also showed a significant association to ADHD
- Maternal methylmercury ingestion (fish in diet)(?)
- Cocaine/crack exposure not a reliable risk factor after controlling for the above factors

# Acquired Cases: Post-Natal (3-7%)

- ◉ Head trauma, brain hypoxia, tumors, or infection
- ◉ Febrile seizures
- ◉ Lead poisoning in preschool years (0-3 yrs.)
  - > Boys are more sensitive (at risk) than girls if lead burden is elevated
  - > But if mothers had adequate HDL and low stress it moderates effects
- ◉ Iron Deficiency – more an exacerbating factor than primary
- ◉ Streptococcal Bacterial Infection
  - > triggers auto-immune antibody attack of basal ganglia
- ◉ Post-natal elevated phenylalanine (dietary amino acid related to PKU)
  - > Prenatal – hyperactivity
  - > Post-natal – inattention
- ◉ Survival from acute lymphoblastic leukemia (ALL)
  - > Treatments for ALL cause brain damage resulting in 28%+ of survivors having ADHD (SCT) symptoms

# Etiologies of ADHD

Adapted from Joel Nigg (2006), *What Causes ADHD?* New York: Guilford Press.



ADHD risk genes can interact with these other causes to further increase risk for the disorder

Some ADHD is due to new genetic mutations occurring in the child but not the parent

# What Doesn't Cause ADHD?

- ◉ Food Additives, Allergies, Sugar, Milk in Diet
- ◉ Excessive Caffeine in Diet
- ◉ Environmental Allergens
- ◉ Poor Child Management by Parents
- ◉ Family Stress; Chaotic Home Life
- ◉ Excessive Use of TV, Video-games
- ◉ Increased Cultural Tempo
- ◉ PTSD, Depression, Anxiety, Learning Disability

# Proven Treatments

- Parent Education About ADHD
- Psychopharmacology
  - › Stimulants (e.g., Ritalin, Adderall, etc.)
  - › Noradrenergic Medications (e.g., Strattera)
  - › Anti-hypertensives (e.g., Catapres, Tenex)
- Parent Training in Child Management
  - › Children (<11 yrs., 65-75% respond)
  - › Adolescents (25-30% show reliable change)



## Proven Treatment (2)

- ⦿ Teacher Education About ADHD
- ⦿ Teacher Training in Classroom Behavior Management
- ⦿ Special Education Services (IDEA, 504)
- ⦿ Residential Treatment (5-8%)
- ⦿ Parent/Family Services (25+%)
- ⦿ Parent/Client Support Groups (CHADD, ADDA, Independents)

# Unproved/Disproved Therapies

- ◉ Elimination Diets – removal of sugar, additives, etc. (Weak evidence)
- ◉ Megavitamins, Anti-oxidants, Minerals
  - (No compelling proof or disproved)
- ◉ Sensory Integration Training (disproved)
- ◉ Chiropractic Skull Manipulation (no proof)
- ◉ Play Therapy, Psycho-therapy (disproved)
- ◉ Biofeedback (EMG or EEG) (experimental)
  - › 2 randomized trials found no convincing effects
- ◉ Self-Control (Cognitive) Therapies (in clinic)
- ◉ Social Skills Therapies (in clinic)
  - › Better for Inattentive (SCT) Type and Anxious Cases

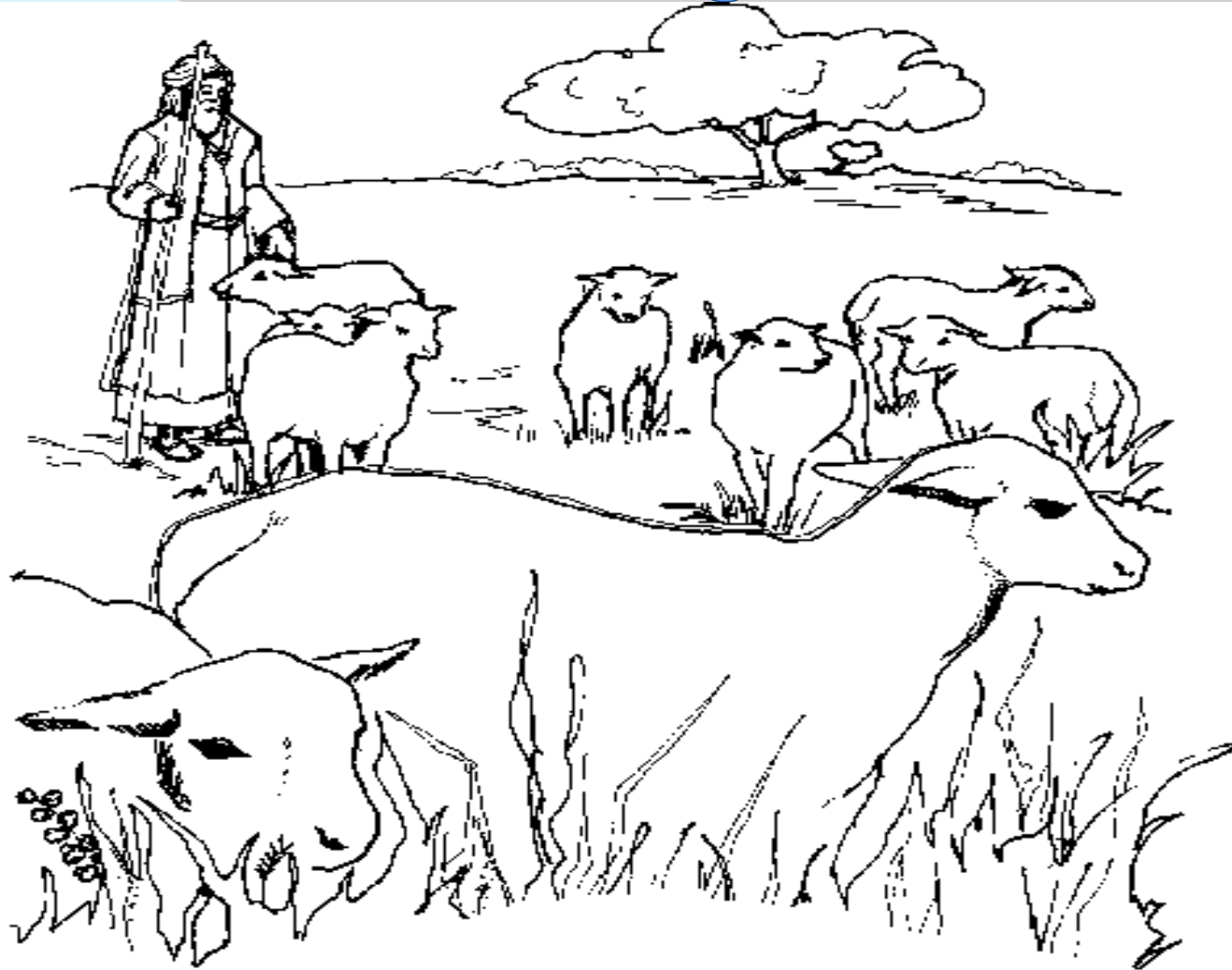
# 7 Reasons for Early Intervention

- ◉ Reduction of symptom severity and associated executive/self-regulatory deficits
- ◉ Reduce family stress, parent-child conflict,
- ◉ Reduce risks for of impairments in major life activities (home, school, peers, community)
- ◉ Reduce risks for health-related problems
- ◉ Reduce risks for comorbid disorders, both externalizing (oppositional, conduct) and internalizing (anxiety, depression)
- ◉ Reduce economic burden to family & society
- ◉ Neuro-protection: accelerated brain growth?



# The 14 Best Principles for Managing a Child with ADHD

# Parents are Shepherds – Not Engineers



# Parents Are Shepherds, Not Engineers

- ◉ Your children are a unique combination of your extended families' genetic traits
- ◉ These interact with your family environment to make your child even more unique
- ◉ And all that interacts with unique events that occur to your child as they develop to form a highly unique individual
- ◉ You don't get to completely design who your children are or are going to be; they come with hundreds of traits, abilities, talents, and deficits that are largely not of your doing
- ◉ Your role as a parent is closer to that of a shepherd to a lamb than one of an engineer or sculptor to raw materials or a block of clay

# Parents are Shepherds

- ◉ So, provide for high quality, safe, nurturing, supportive and stimulating environments where you can (including the community in which you choose to live)
- ◉ Encourage (reward) pro-social behavior when possible
- ◉ Discourage anti-social and ineffective behavior when and where ever possible
- ◉ Break up deviant peer relationships whenever detected
- ◉ Make environmental accommodations for your child's deficits where you are able to do so
- ◉ Make your rules and home life as consistent and predictable as possible – manage behavior from principles and not from emotions
- ◉ Create opportunities for success when you can – open the doors for chances to improve or excel
- ◉ Consider nontraditional pursuits or avocations
- ◉ And then enjoy the show. The rest is largely out of your control



## A Formula for Adult Success in Children with ADHD

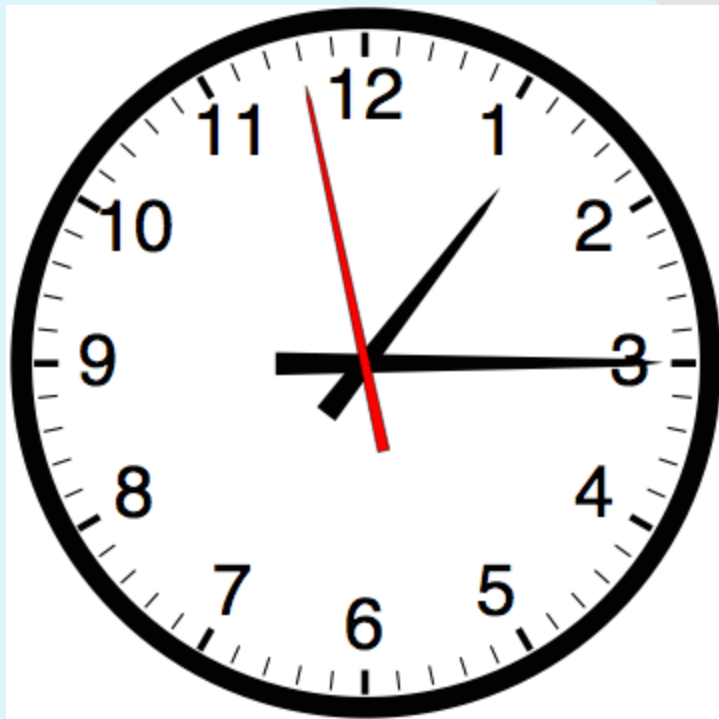
- The support of loved ones is crucial to long-term success
- Accept ADHD as a neuro-genetic disorder affecting the child's development of self-regulation
- Find ways to compensate for the deficits in executive functioning and so reduce impairments arising from those deficits
- Take advantage of extra help at school and after school to promote academic competence
- Use ADHD medications when necessary and sustain their use through adolescence

# More Contributors to Success

- ◉ Identify the child's strengths, unusual abilities, nontraditional aptitudes – music, performing arts, sports, visual arts, photography, technology, culinary science, outdoor recreation, entrepreneur, the trades, etc.
- ◉ Find ways to promote the further development of and competence in those aptitudes
- ◉ Identify area resources that can further promote these often nontraditional aptitudes and enroll your child in them
- ◉ Be a safety net, advocate, and unconditional support system for the child – don't abandon them – tough love doesn't work!
- ◉ The formula for success: Acceptance + Treatment + Aptitudes + Resources + Supportive loved ones

# Time Escapes Them!

● Typical Children



ADHD Children



# Minimize Delays; Externalize Time

- Children with ADHD have problems with using their internal sense of time to guide their behavior; time escapes them
- They are also less able to wait for consequences or events and to defer gratification – they get impatient
- So pay attention to the E-R-O arrangements in life
  - Events that need to be addressed
  - Responses to prepare for them
  - Outcomes or consequences from them

# Minimize Delays; Externalize Time

- ◉ Shorten the delays between the E-R-O situations in life when you can
- ◉ Break lengthier tasks down into smaller ones and do these smaller ones more often
- ◉ If they have to wait for something, divert their attention away from the time interval and toward something else more interesting in the situation (watched pots never boil)
- ◉ If they have to work for a period of time longer than a few minutes, make the time interval physical (externalize it)
  - Use timers, clocks, counters, or other devices that show how much time there is to do something and how fast it is passing.

# Poor Working Memory (remembering so as to do)



k8602756 [www.fotosearch.com](http://www.fotosearch.com)

## Make Important Information Physical (Externalize or Off-Load It)

- ◉ ADHD creates problems for a child's working memory – the ability to hold in mind what one is supposed to be doing
- ◉ So don't rely so much on their working memory
- ◉ Make important rules or other reminders and information physical in situations where it is important for them to remember something
- ◉ Use sticky notes, cards, cues, and other ways of physically representing information in that setting to help guide their behavior
- ◉ As they get older, self-talk during tasks may also help
- ◉ Have them rehearse "when-then" plans in a situation to help prime their recall of what they are to do the next time they are in that situation

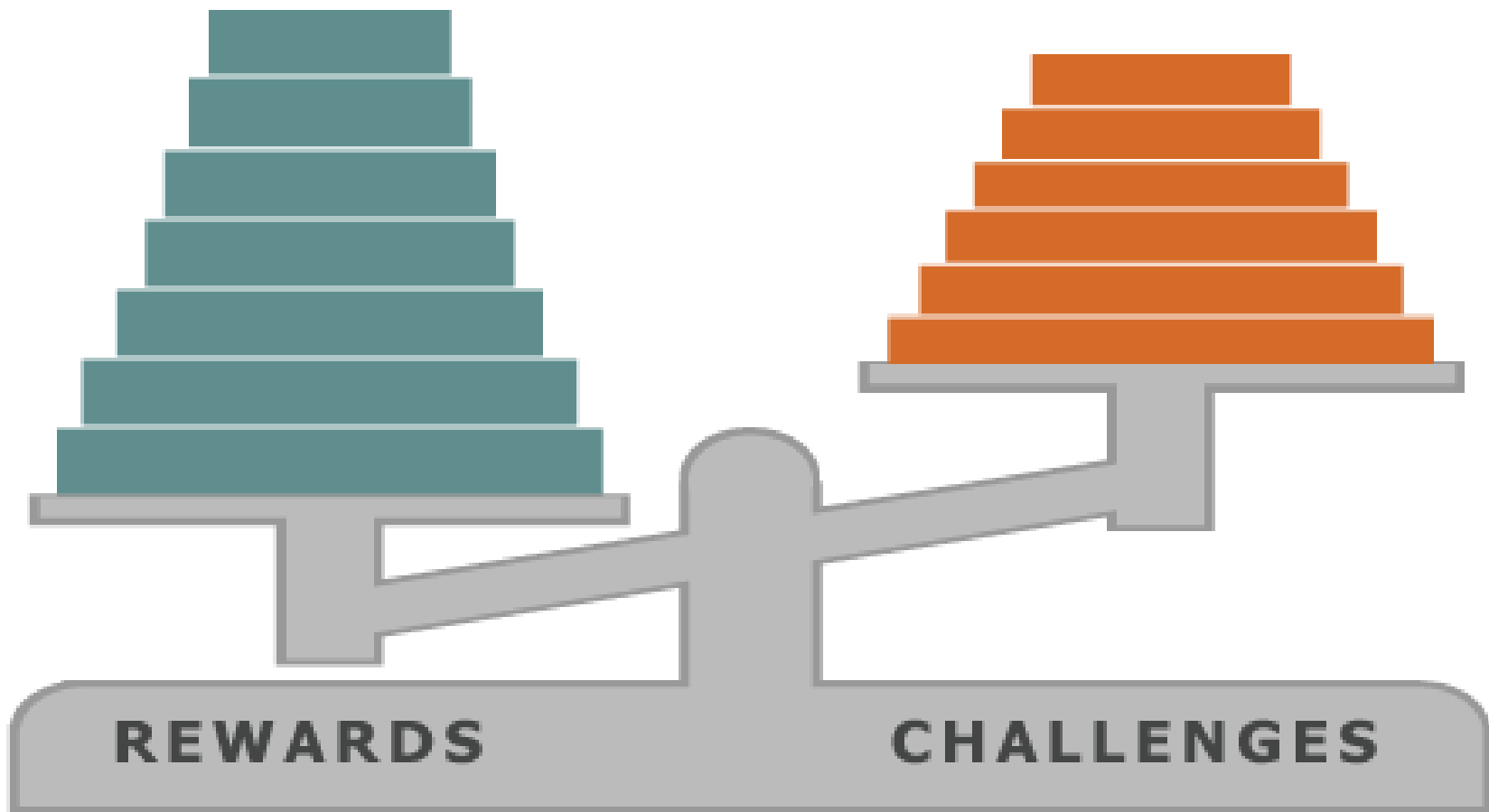


# Wristlists

wristlists.com



# Make Rewards Part of the Task



## Add Artificial Consequences - (Externalize Motivation)

- ADHD creates a deficit in our capacity for self-motivation (internally created will-power)
- Children with ADHD cannot persist at tasks that involve long delays to the consequences for getting them done
- This is why they can play videogames for hours or do things they really enjoy and cannot do homework and chores for more than a few minutes.
- You need to think “win/win” when it comes to work to be done

# Add External Motivation

- ◉ When tasks must be done for which there are no immediate consequences, then add some artificial ones to that situation
- ◉ Add tokens, points, money, privileges, or other rewards that can be earned frequently throughout the task; change them up periodically
  - Points can be cashed in later for bigger, salient rewards
- ◉ Also, have them visualize the goal and its rewards
- ◉ Even make or find a picture of it if possible and place it in front of them while they work
- ◉ Then have them talk about the goal and the final rewards periodically while they are working on the task
- ◉ Give feedback more often and more quickly
- ◉ Keep their blood sugar up throughout the task with a sports drink or lemonade

# Use Rewards Before Punishments

- ⦿ ADHD children are punished more often than other children, but it doesn't work
- ⦿ To deal with a problem behavior, always start with a reward program
- ⦿ Think about the misbehavior and what your child should have done instead
- ⦿ Now with that positive alternative behavior in mind, think about how to encourage it
- ⦿ Then arrange for positive feedback and rewards to occur whenever you see that behavior
- ⦿ Do this for several days before you focus on punishing the alternative misbehavior
- ⦿ Only when a situation rewards good behavior is punishment likely to succeed for misbehavior
- ⦿ Even then, discipline should be swift but brief



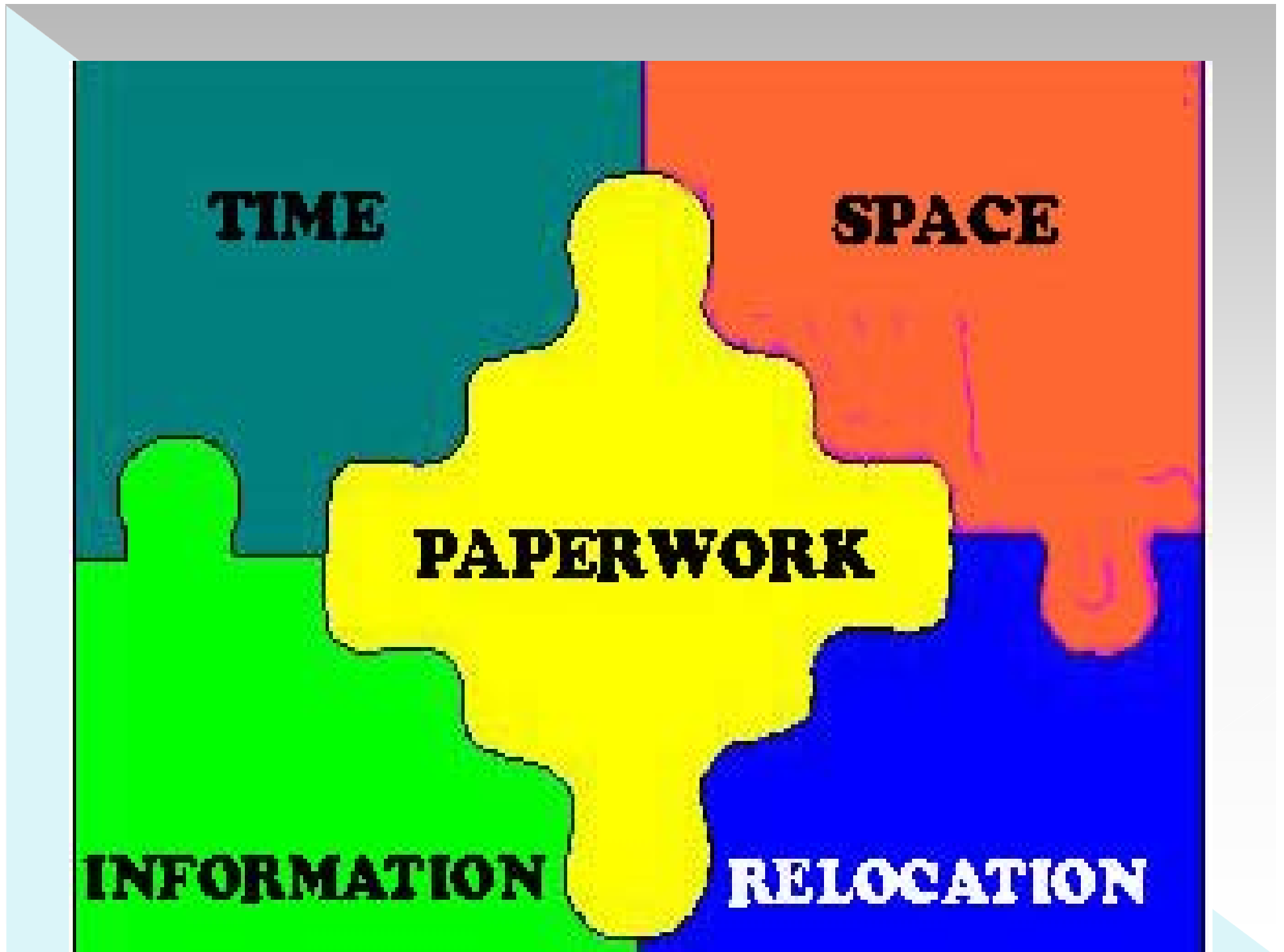
**TIME**

**SPACE**

**PAPERWORK**

**INFORMATION**

**RELOCATION**

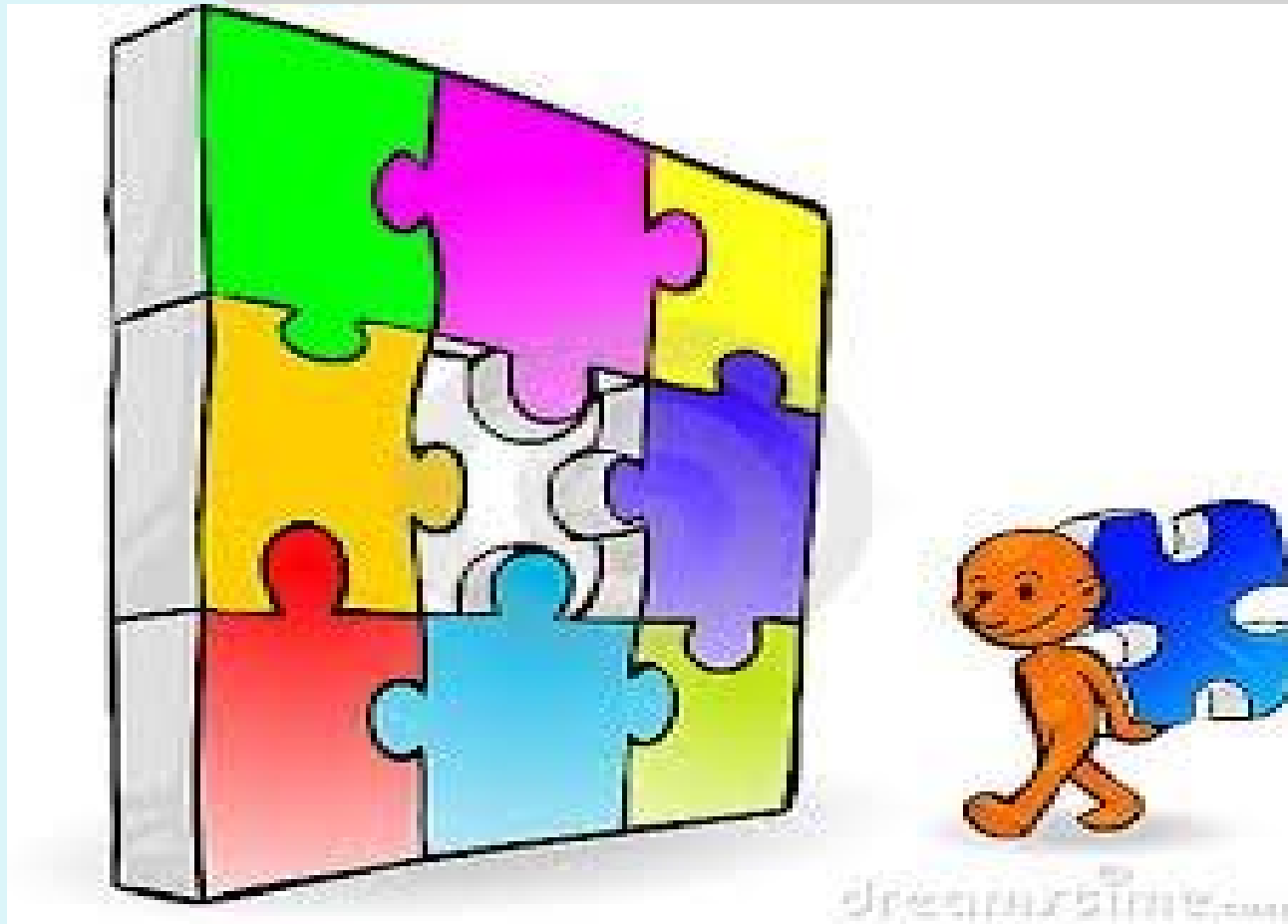




# Systematically Organize Tasks at Their Points of Performance

- ◉ What is required
- ◉ Where should it be located
  - > At the point of performance !
  - > What is used most often (frequency)
  - > When is it used (temporal sequencing)
- ◉ Is the work-space ADHD friendly ?
- ◉ What storage devices might be helpful
  - > Folders, notebooks, trapper keepers, bins, etc.
- ◉ Would signs, charts, checklists, or picture sequences be useful ?
- ◉ When is the best time to do this task?

# Make Problem-Solving Physical (Manual)



# Make Mental Tasks and Problem-Solving Manual

- ADHD causes problems with the ability to do mental tasks; they can't hold the information in mind and manipulate it as well as others (due to poor working memory)
- So break tasks and problems into pieces
- Think about how you could make those pieces physical
- Let them manually work on and manipulate the pieces of the task or problem – help them to use their hands in solving the problem

# Talk Less, Touch More



# Touch More, Talk Less

- ◉ Act, don't yack! Parents talk too much
- ◉ When you must instruct, praise, or reprimand your child,
  - › Go to them
  - › Put your arm around their shoulder or your hand on their arm or hand
  - › This makes communication more intimate
  - › Look them in the eyes -- think Clint Eastwood
  - › **Briefly** say what you have to say
  - › Keep it short, business like, and to the point
  - › If appropriate, have them repeat back what you have just said (i.e. instructions)

# Be Pro-active, not Reactive

**PLAN:**

PROACTIVE

REACTIVE



# Have a Plan!

## Think Aloud, Think Ahead



# Be Proactive: Anticipate and Prepare for Problem Situations

- Don't be just a reactive parent
- Review your child's life for typical problem situations
  - Stores, restaurants, church, while visiting others' homes, play-groups, homework, while you are on the phone, chores
- Now think about what you could do just before you enter those situations to head off any potential behavior problem
- Now develop your transition plan to use the next time you are about to enter that situation



# Transition Planning

- ◉ Stop! Wait before you enter that setting
- ◉ Review with your child a few rules that they are to follow in that situation
  - › Have them repeat them back to you
  - › Write them on a card to give to your child if necessary
- ◉ Explain the rewards your child will earn in that situation for following the rules
  - › Have them repeat them back to you
- ◉ Explain the punishment they will receive if rules are broken
  - › Have them repeat them back to you
- ◉ Give them something to do in that setting
- ◉ Enter the situation and follow your plan
- ◉ Give frequent feedback and evaluate how well things went when you are done

# Increase Accountability!



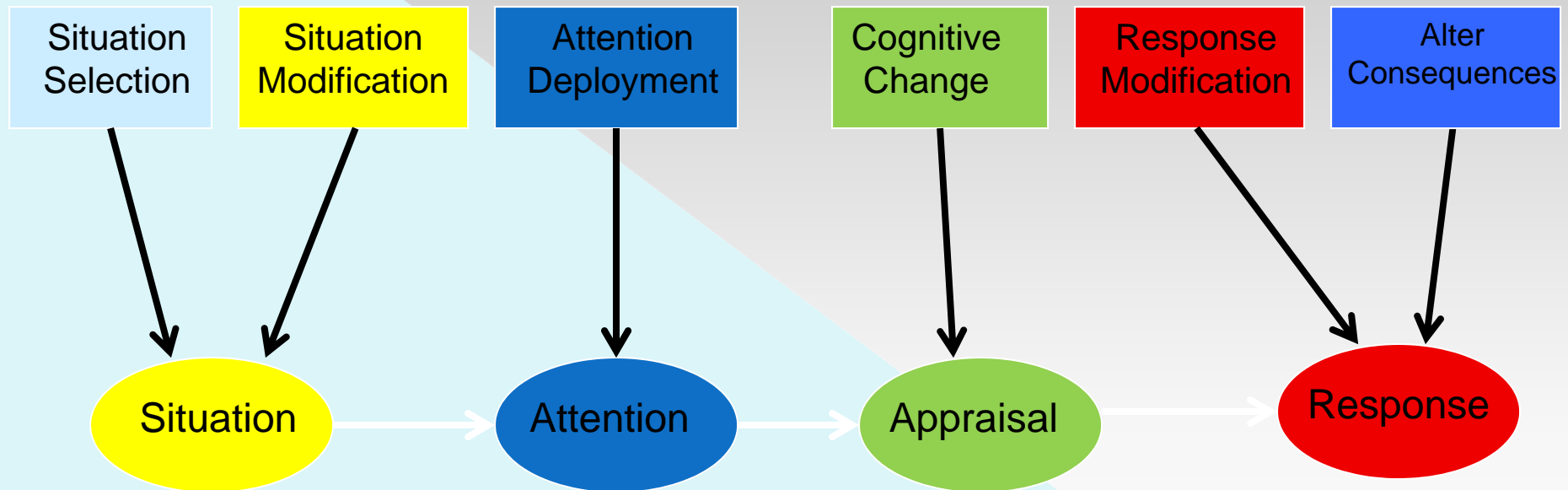
# Increase Accountability to Others

- ◉ ADHD makes children less able to work independently, especially for long periods of time on their own
- ◉ Break such tasks into shorter work periods
- ◉ Review the goals or work to be done at the beginning of each short period
- ◉ Check back with your child at the end of each period to review how much is done
- ◉ Give them positive feedback for attaining these short-term goals
- ◉ If they were not successful, break the task down into even shorter periods of work and review that work with them more often
- ◉ Remember the 10 & 3 rule
  - 10 minutes of work, 3 minutes break

# Getting Control of Emotions



# Six Places to Change Behavior and Emotions (Remember – Its Not Usually a Skill Deficit)



Sequence of Behavioral or Emotional Response

From Gross' Modal Model of Emotion:

Gross, J. J. (1998). *Review of General Psychology*, 2, 271-299.

Gross, J. J. (2007). *Handbook of emotion regulation*. New York: Guilford (pp. 3-24).

McCrae, K., Ochsner, K. N. & Gross, J. J. (2011). The reason in passion. In K. Vohs and R. Baumeister (Eds.), *Handbook of Self-Regulation* (2<sup>nd</sup> ed.). New York: Guilford Press.

# Get Your Priorities Straight



# Keep A Sense of Priorities

- ◉ A lot of work we assign to children is not very important in the long run
- ◉ Yet by giving them lots of trivial things to do we create more problems with them
- ◉ Know which battles are worth fighting and which should not be fought
- ◉ Focus instead on the most important chores, tasks, and directives
- ◉ Eliminate giving those that are of less importance for awhile

# Remember – It's a Disability





# Keep a Disability Perspective

- ADHD delays a child's capacity for self-control and independence from others
- Remember the 30 percent rule
  - Reduce your child's age by 30% to find their executive age – age of self-regulation
- Now reduce your expectations, and the responsibilities, or chores you give them to this age level
- You have just reduced the potential for conflict with your child by matching your expectations to their actual abilities
- Always remember that ADHD is a neurological and genetic disability, not a choice

Forgive!



# Practice Forgiveness

- You are going to make mistakes in managing your child with ADHD
  - › That's OK as long as you try to get it right next time
  - › Forgive yourself for these occasional screw-ups; we all make them, even experts
- Others are going to misjudge your child; forgive them their ignorance of ADHD
- Your child will make more mistakes than others
  - › That is OK as long as they try to get it right next time  
Help them to do so
  - › Forgive them for these mistakes as well
  - › Practice a daily exorcism of child problems
  - › Find ways to restore a positive view of your child
    - Picture on fridge; watching them sleeping

# Conclusions

- ④ Understanding and managing a child with ADHD boils down to following these 14 basic principles of parenting
- ④ Follow them and you will do as well as you can as a parent to raise a happier, more effective, and well adjusted child
- ④ And you will have a more supportive and peaceful family
- ④ You will also have built the foundation for a life-long relationship and a bond with your child that can help sustain you both throughout life