

## **Information on Stimulant Medication for the Treatment of ADHD Symptoms\***

### Benefits of Stimulants:

- Increased concentration and persistence
- Decreased impulsivity and hyperactivity
- Increased work productivity (accuracy)
- Decreased days absent from school
- Increased reading achievement by age 18
- Decreased likelihood of grade retention
- Better emotional control
- Decreased aggression and defiance
- Decreased antisocial activities
- Treating into adolescence lowers the likelihood of smoking and substance use disorders
- Improved compliance and rule following
- Better working memory and internalized language
- Improved handwriting and motor control
- Improved self-esteem
- Decreased punishment from others
- Improved peer acceptance and interactions
- Better awareness of game in sports
- Improved attention and reaction time during driving performance

### Side Effects of Stimulants:

- Benign; <5% discontinue due to adverse events
- All side effects are dose responsive
- Most common side effects include:
  - Insomnia (50%+)
  - Loss of appetite (50%+)
  - Headaches (20-40%)
  - Stomach Aches (20-40%)
- Irritable, prone to crying (<10%)
- Nervous habits and mannerisms (<10%)
  - Tics (<3%) and Tourette's (Rare)
- Mild failure to gain weight (mean = 1-4 lbs; transient)
- Small effect on height first year (about 1 cm)
- Growth effects limited to first 1-3 years of therapy
- Increased heart rate (3-10 bpm)
- Increased blood pressure (1.5-14mmHg)
- 1.5% experience stimulant psychosis
- No discernable long-term adverse consequences found to date

### Common Myths about Stimulants:

- Addictive when used as prescribed. *False. It must be inhaled or injected*
- Creates aggressive, assaultive behavior. *False. Decreases aggression and antisocial actions*
- Increased risk of seizures. *False. Only at very, very high doses.*
- Causes Tourette's Syndrome. *False. Can increase tics in 30%, decrease it in 35%.*
- ADHD kids are being over-dosed. *False. Nonpsychiatric MDs tend to under-dose below doses used by psychiatrists or in research.*
- These drugs are over-prescribed. *False. 4.3% on medication vs. 7.8% prevalence of ADHD.*
- Greater risk of later substance abuse. *False. 15 studies find no such result; a few also found decreased risk if continued through teen years.*

\*Adapted from Barkley, R. (2011), "ADHD in Children and Adolescents: Executive Functioning, Life Course Outcomes, and Management" Minneapolis, MN.