# Every person with ADHD has a unique portrait.

## Now you can see it objectively.

Quotient™ ADHD system

The Quotient™ ADHD System accurately measures motion and analyzes shifts in attention state to give an objective picture of the core symptom areas of ADHD.

## Adult ADHD

## Attention Deficit Hyperactivity Disorder (ADHD)

is a neurobehavioral disorder that affects the way an individual functions in different settings. A person with ADHD may face life-long challenges in school, work and personal relationships. Identifying the disorder early and finding the best treatment is very important. With proper treatment, many people with ADHD can and do lead successful lives.

## ADHD has 3 core symptom areas:

- Inattention (cannot focus)
- Hyperactivity (cannot sit still)
- Impulsivity (act without thinking)

## Adult ADHD is Real

It is a common misconception kids outgrow ADHD, but 60% of children diagnosed with ADHD have symptoms into adulthood. Symptoms are more subtle in adults, but can create significant challenges in daily life.

Adults often develop strategies to cope with their ADHD. Each day of an adult's life brings new responsibilities, duties and challenges, which may eventually overwhelm these coping strategies.

**Approximately 60% of children with ADHD have symptoms through adolescence and into adulthood.**

## ADHD Impacts Adults Differently from Kids

Adults and children often share the same symptoms of ADHD. However, the impact on their lives and how symptoms are perceived by others may be different.

| ADHD Symptoms | In Children | In Adults |
|---|---|---|
| Inattention | Easily distracted<br>Does not finish things | Difficulty following instructions<br>Poor time management |
| Hyperactivity | Squirms or fidgets<br>In constant motion | Restlessness<br>Impatience |
| Impulsivity | Blurts out answers<br>Cannot take turns | Irritability<br>Interrupts others |

## Recognizing ADHD

ADHD is divided into three different subtypes.

### Inattentive Type

- Difficulty paying close attention to details
- Makes careless mistakes
- Hard to organize activities or finish a task
- Difficulty following instructions or conversations
- Is forgetful in daily activities, frequently loses things

### Hyperactive-Impulsive Type

- Extreme restlessness and fidgetiness
- Talks excessively and/or interrupts others

### Combined Type

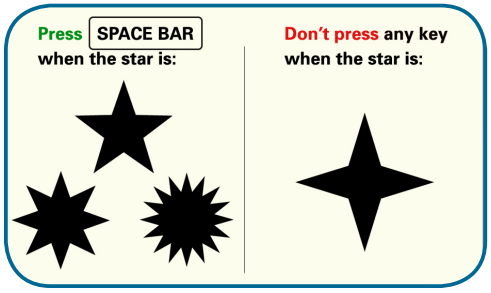
- Symptoms of both types are equally strong

## Objective Data Leads to Better ADHD Assessment

ADHD historically has been challenging to diagnose because many assessment tools rely largely on subjective information. The Quotient™ ADHD Test makes the clinical assessment more objective.

The Quotient™ ADHD System accurately measures motion and shifts in attention state to give an objective picture of the core symptom areas of ADHD.

The Quotient™ ADHD Test for adolescents and adults is a 20-minute test that measures an individual's movement while he or she attempts to focus on changing visual stimuli. The information is uploaded via a secure internet connection and results are compared to a database of age and gender matched groups. The report is available right away to guide the discussion about next steps.




## How does the Quotient™ ADHD System work?

Research shows that individuals with ADHD change positions and have a much greater total movement level than people without ADHD in the same setting. The Quotient™ ADHD System uses a patented Motion Tracking System to measure movement. The software analyzes motion, reports on the accuracy and response time to stimuli and analyzes shifts in attention state.

- Motion is measured 50 times per second and movement greater than 1 millimeter is recorded.
- Patterns of movement and shifts between attentive, impulsive, distracted and disengaged attention states are measured at the same time. This is important in distinguishing ADHD from other behavioral disorders.
- Results are compared to a database of results generated by age and gender matched adults with and without ADHD.
- Your clinician may repeat the Quotient™ ADHD Test periodically to assess your progress.

## Baseline Assessment
Alex, age 21. No medication

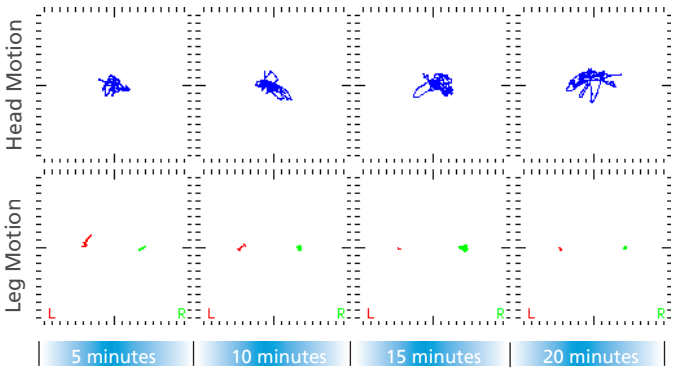
Alex is a 21-year old college student. His chief complaints included trouble with focus, agitation, procrastination and extreme test anxiety. The initial clinical interview suggested possible ADHD with anxiety and/or depression.

## Post-Medication Assessment
7 mg Focalin

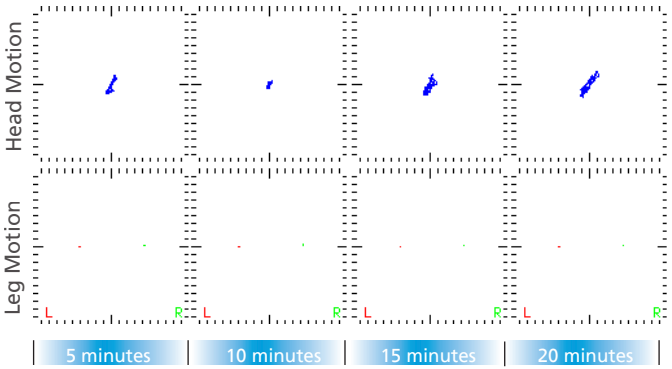
See Alex's full report at http://biobdx.com/Products.aspx

Other case studies may be downloaded from BioBDx.com.

## Motion Analysis




The graphs plot motion of the head and legs. Head motion increases over the course of the test.The patient has motion control dysfunction.




Motion control improved over the baseline assessment. The motion tracking for the legs are pinpoints, indicating that the legs are very still.

## Attention State Summary


The Quotient™ ADHD System analyzes 30-second blocks of data that is generated during the attention task. For the first 30 seconds, Alex was on task, followed by 60 seconds of distraction, followed by 30 seconds of impulsive behavior, and so on. The data suggests a problem with inattention.


Although he had 25 attention shifts, Alex's performance improved in his follow-up test. Alex demonstrated better focus, but still has 12 30-second blocks of impulsivity. He was attentive 62%, impulsive 30.0% and distracted 7.5% of the test.

## Composite Scores

The Scaled Scores are normalized calculations on a 10-point scale. Higher Scaled Scores indicate deficit in control of motion and attention compared to age and gender matched subjects. The Global Scaled Score is an average of the motion and attention scores.

| | Baseline | Follow-up |
|---|---|---|
| Motion Scaled Score | 8.28 | 4.17 |
| Attention Scaled Score | 8.69 | 6.07 |
| Global Scaled Score | 8.48 | 5.12 |

KEY

| 0.00-2.50 | 2.51-5.00 | 5.01-7.50 | 7.51-10.00 |
|---|---|---|---|
| | non-ADHD mean = 4 | ADHD mean = 7 | |

# Quotient™
## ADHD system

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