

## Patient History

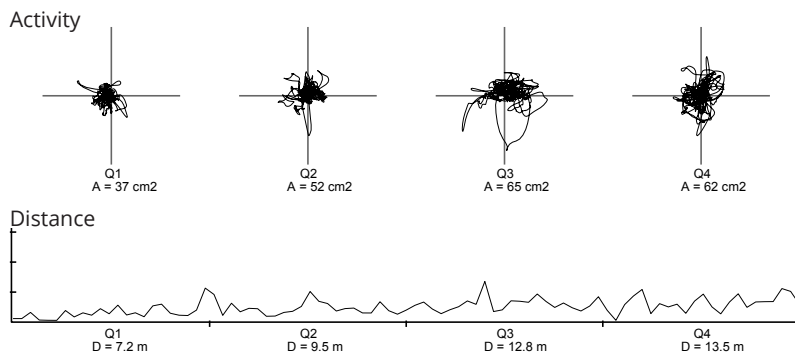
Sarah\* is a bright 9 year old girl, living with her older brother and her mother, as parents are recently divorced. Sarah has difficulties paying attention at school. She also seems to be forgetful as well as very fidgety. At home she is easily frustrated with homework and needs a long time to complete assignments. Sarah's problems began in elementary school and she is now in for evaluation of her attention problems.

\* Sarah is fictitious name

## QbTest as a Part of an ADHD Evaluation

At the clinic QbTest was used to complement the clinical interview and rating scales in order to get an unbiased view of the three core symptoms ADHD.

### 1. Motion Analysis

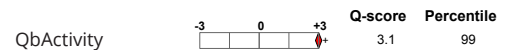


Sarah's activity levels increase over the duration of the test showing a significant deterioration of ability to control movement. Distance and Area, the two most sensitive parameters in the measurement of activity shows activity more than 2.5 Q-Scores (the equivalent of standard deviations from mean result), signifying marked difficulty controlling hyperactivity compared to a group of girls her age without ADHD. The weighted score for activity, QbActivity, also shows Sarah's activity is clinically outside of the normative range.

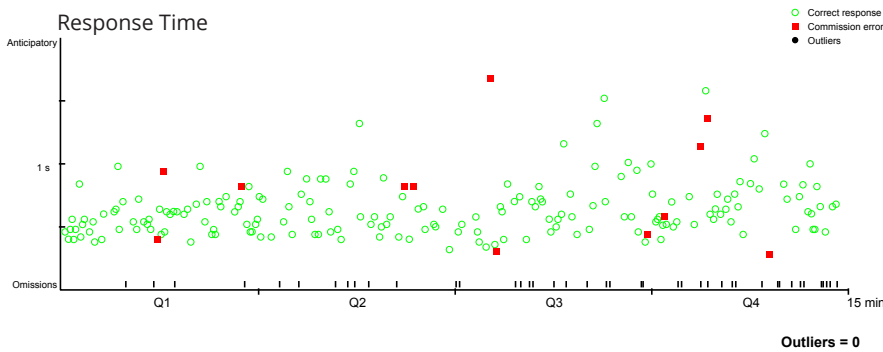
#### Quantitative & Normative Data

Measure	-3	0	+3	Q-score	Percentile
<b>Time Active</b>				2.4	99
<b>Distance</b>				3.0	99
<b>Area</b>				2.9	99
<b>Microevents</b>				3.2	99
<b>Motion simpl.</b>				0.9	82

A Q-score  $\geq 1.5$  is generally seen as atypical result

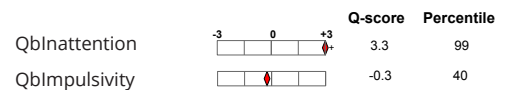


### 2. Attention & Impulse Control Analysis



#### Quantitative & Normative Data

Measure	-3	0	+3	Q-score	Percentile
<b>ReactionTime Var</b>				2.6	99
<b>Omission Error</b>				2.5	99
<b>Reaction Time</b>				2.5	99
<b>Normalized Var</b>				1.5	93
<b>Commission</b>				-0.2	42
<b>Anticipatory</b>				-0.5	31
<b>MultiResponse</b>				0.8	79
<b>Error rate</b>				1.2	88



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The Attention and Impulse Control Graph shows that during the first few minutes of the test Sarah is focused and performs with stable accuracy and focus. By the beginning of the second quartile (Q2) the Reaction Time Variation starts to increase (as seen in the wider spread of the green circles, the correct responses) as well as the number of Omission Errors, a sign of distractibility. They continue to increase over the course of the test showing clinically significant elevated Q-scores ( $>1.5$ ) indicating difficulty sustaining attention over time compared to her age and gender matched normative group. The deterioration in her test performance is also a typical pattern seen in patients with ADHD.

Sarah displays an adequate control of her impulses, as seen in the scores for Commission Errors (incorrect responses marked by red squares) and Anticipatory Errors. These two measures of impulsivity are within the normal range. Overall The QbTest shows significant difficulties within the area of Activity and Attention.

To learn more on how QbTest can make a difference at your clinic contact us at [info@qbtech.com](mailto:info@qbtech.com)