

Presented by the Youth Development Institute, New York City, January 2014

## ADOLESCENT BRAIN DEVELOPMENT

Adolescence is a time of intense brain changes. There are many rich cognitive and structural changes that occur throughout the teen years.

### BRAIN FACTS



**FACT #1:** A wave of overproduction of gray matter —the thinking part of the brain — occurs just prior to puberty. It peaks around age 11 in girls and 12 in boys.

**FACT #2:** The part of the brain that perceives rewards from risk — the limbic system — kicks into high gear in early adolescence.

**FACT #3:** The frontal lobe, which controls impulses, aggression, and engages in longer-term perspective, matures later.

**FACT #4:** Adolescents think mostly with the back of the brain where emotional processing occurs.

**FACT #5:** Evidence now is strong that the brain does not cease to mature until the early 20s in those relevant parts that govern impulsivity, judgment, planning for the future, and foresight of consequences.

**Brain development continues up to age 25**

### Food for thought...

- ◆ A young person might look physically mature, but their brain may in fact not be mature.
- ◆ Adolescents may not appreciate consequences or weigh information the same way as adults do.
- ◆ Adolescent risk-taking seems to be due to a complex mix of brain changes, hormones and environmental factors.