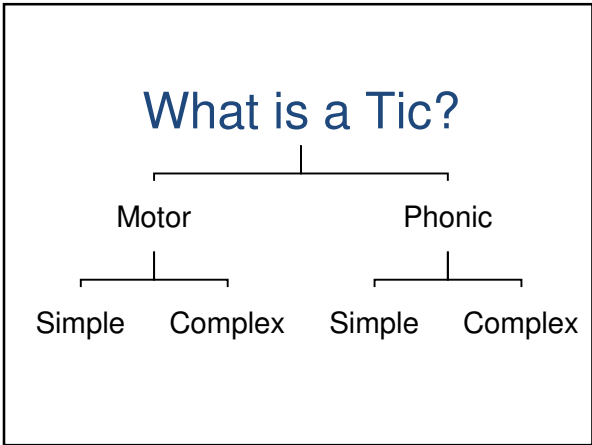


Tic Disorders



Motor tics

Simple - sudden brief, meaningless movements

- Eye blinking, eye movements, grimace, mouth movements, head jerks, shoulder shrugs

Complex - slower, longer, more "purposeful"

- Multiple simple tics occurring in an orchestrated pattern, facial gestures, touching objects or self, hand gestures, gyrating or bending, dystonic postures, copropraxia (obscene gestures)

Phonic Tics

Simple - sudden meaningless sounds or noises

- Throat clearing, coughing, sniffing, spitting, animal noises, grunting, hissing, sucking, other simple sounds

Complex - sudden, more "meaningful" utterances

- Syllables, words, phrases ("shut up", "stop that")
- Coprolalia (obscene, aggressive words)
- Palilalia (echo self)
- Echolalia (echo others)

Types of Tic Disorders

• Transient Tic Disorder

- Tics occurring longer than four weeks but less than one year

• Chronic Motor / Vocal Tic Disorder

- Motor or vocal tics (not both) occurring for longer than one year

• Tourette's Disorder

Tourette's Disorder

• DSM-IV-TR diagnosis requires:

- Presence of both motor and phonic tics
- Prevalence greater than one year
- Occurrence of tics multiple times per day
- Onset before age 18
- No tic-free period longer than three months

• Effects approximately 0.04-0.05% of people

- 120-150,000 individuals in United States

Tourette's Disorder

- Typical age of onset is 5-6 years old
 - Often starts with simple facial tics, then progresses to more complex and motor tics
- Many more males than females diagnosed
 - 2-5:1 ratio seen in clinics and epidemiological studies
- Associated with very high levels of comorbid disorders and symptoms

Tic Frequency

- 97.7% Simple motor tics
 - 43.2% Eyes
 - 43.2% Mouth
 - 34.1% Facial
- 75.0% Simple vocal tics
- 13.6% Coprolalia

Tourette's & Comorbidity

- Obsessions and compulsions – 50%
- Depression – 41%
- Attentional problems, hyperactivity – 50-75%
- Learning disabilities – 51%
- Panic attacks – 13%

Etiology

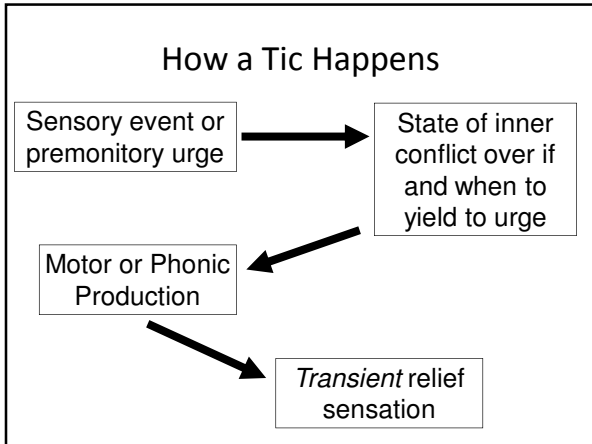
- Very strong genetic basis
 - Twin studies show 86% concordance for MZ
 - Family members 150 times more likely to have tics than general population
- Associated perinatal and postnatal insults
 - Low birth weight, maternal stress, chemical exposure, placental insufficiency, gestational diabetes

What Causes Tics?

- Appears to be an irregularity of the neurotransmitters dopamine and serotonin
- There is no “cure,” but symptoms tend to decrease after adolescence in most people
- Treatment options include drugs and therapy
 - Anticonvulsants and neuroleptics are useful for some, but have very negative side effects

Can't They Control It?

- Short answer: No
- Control and severity waxes and wanes over the day
- Best analogy for most people is a sneeze
 - You can feel it coming on, can hold it off for a little while, but ultimately you have to let it out
 - The longer most people hold it in, the greater the severity when it is let out



- ### Tourette's Related Problems
- Lowered overall quality of life
 - Academic problems
 - Impaired social interactions
 - Number of home-life impairments
 - Increased marital difficulties, substance abuse, family conflict, and parenting frustration

- ### Tourette's Related Problems
- 88% of those with tics report a negative impact on their daily functioning
 - Higher unemployment rates and lowered income as adults
 - Self-esteem and social anxiety
 - Physical damage

Common Triggers for Tics

- Being upset or anxious
- Watching TV
- Being alone
- Social gatherings
- Stressful life events
- Hearing others cough
- Talking about tics
