

For the Primer, visit doi:XXX

➔ **Conduct disorder (CD) is a psychiatric disorder that originates in childhood or adolescence, and is characterized by behaviours that violate the rights of other individuals.**

**EPIDEMIOLOGY**

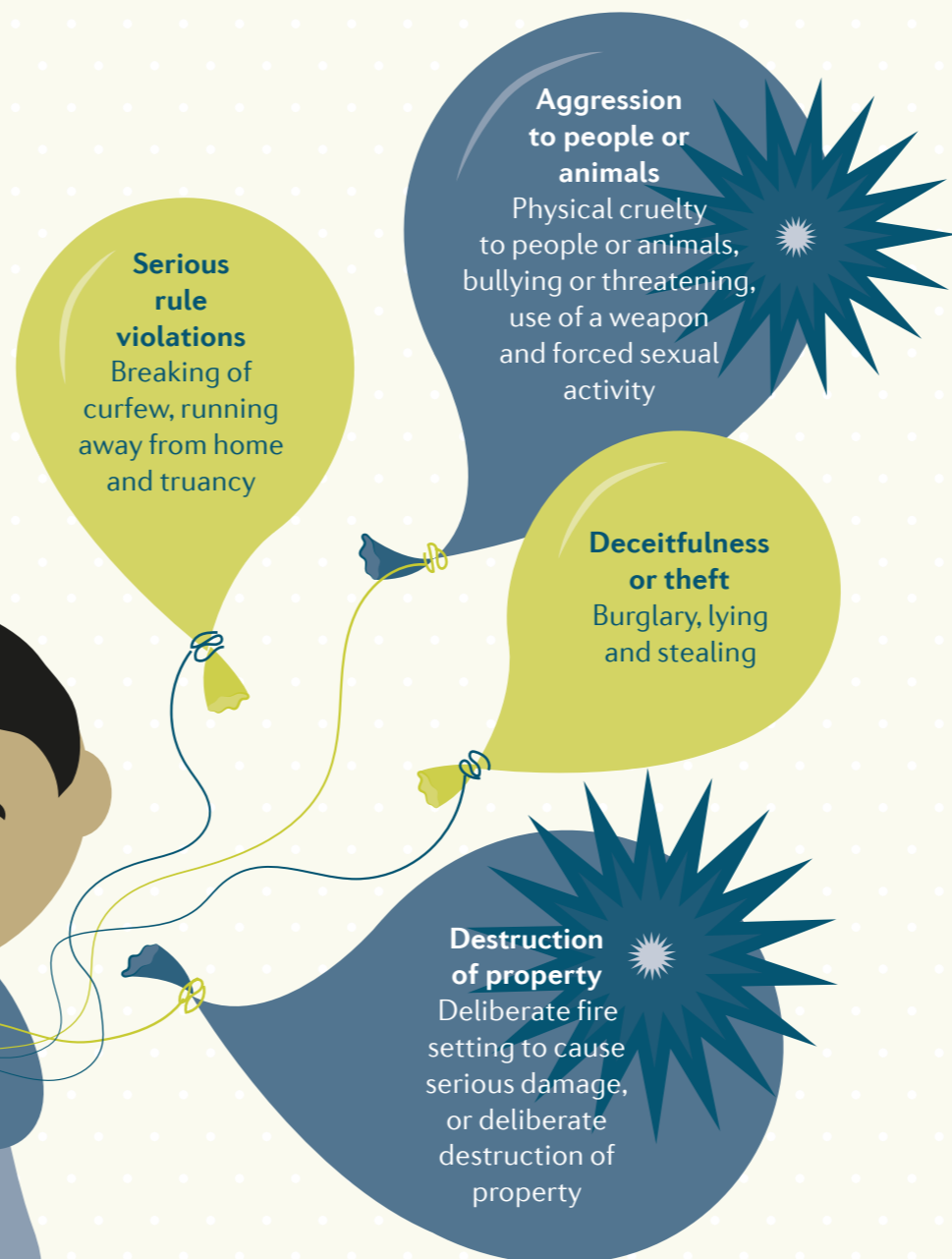
The global prevalence of CD has been estimated as 2–2.5%. Epidemiological studies have mainly focused on children of 5–18 years of age and in high-income countries; data from younger children or adults and from low-income countries are lacking.



CD is approximately twice as common in males than in females

**DIAGNOSIS**

! Diagnosis of CD involves clinical interview with parents or teachers to identify problem behaviours in the child. Symptoms can be divided into four categories.



**Aggression to people or animals**  
Physical cruelty to people or animals, bullying or threatening, use of a weapon and forced sexual activity

**Deceitfulness or theft**  
Burglary, lying and stealing

**Destruction of property**  
Deliberate fire setting to cause serious damage, or deliberate destruction of property

**Serious rule violations**  
Breaking of curfew, running away from home and truancy

! Children with CD and a lack of remorse or guilt, empathy, concern about educational attainment and with shallow emotions are differentiated by the 'with limited prosocial emotions' specifier

**OUTLOOK**

Increased awareness of CD is essential, as this disorder is frequently under-diagnosed and under-treated and CD research is

drastically under-funded in many countries. Owing to the large burden of this disorder, funding should be increased to facilitate

an improved understanding of disease mechanisms and guide the development of new treatments.

**Rx MANAGEMENT**

Parent training is the first-line treatment for individuals for with CD, during which parents are taught how to increase warmth, reinforce positive behaviour and set consistent consequences for negative behaviours for their child. In late childhood or adolescence, a child skills training component is added, which aims to improve the child's social and problem-solving skills, emotional regulation and school performance, and to provide community support. Individuals with CD and limited prosocial emotions also receive additional parental and child training.

! Pharmacological treatment can be required in those with CD and comorbid ADHD, developmental disorders or internalizing disorders

**MECHANISMS**

The aetiology of CD is complex, and includes both environmental and genetic risk factors. Environmental risk factors include parental maltreatment, deviant peers, low socioeconomic status, community violence and parental psychopathology. The heritability of CD is 40–50%; implicated genes include those involved in serotonergic and dopaminergic signalling, although further study is required. Individuals with CD have deficits in emotion recognition, affective empathy, decision making and reinforcement learning, which are associated with functional alterations in several brain regions, including cortical regions and the limbic system. Structural brain abnormalities and alterations in brain connectivity have also been reported.



**QUALITY OF LIFE**

CD is associated with criminal and irresponsible behaviours, social impairment and academic or occupational issues that occur throughout life. Comorbid psychiatric disorders are common in individuals with CD; oppositional defiant disorder and attention-deficit/hyperactivity disorder (ADHD) are common in children, whereas substance misuse is common in adolescents. Some individuals with CD will develop antisocial personality disorder in adulthood.