

# What is PICA?

Pica is a type of eating disorder that involves persistent eating of non-food substances/objects which have no nutrition.

## Signs and Symptoms of Pica

Pica is characterised by the following

- Persistent eating of non-nutritive, non-food substances over a period of at least 1 month.
- The eating of non-nutritive, non-food substances is inappropriate to the developmental level of the individual.
- The eating behaviour is not part of a culturally supported or socially normative practice.
- If the eating behaviour occurs in the context of another mental disorder (e.g., intellectual developmental disorder, autism spectrum disorder, schizophrenia) or medical condition (including pregnancy), it is sufficiently severe to warrant additional clinical attention.

American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed. Text Revision). Washington, DC: American Psychiatric Press.

The types of substances ingested by individuals with Pica vary. They commonly include soil, raw starch, and ice, but may include a range of objects such as hair, plastic, rocks, gum etc.

Pica can be associated with a range of serious physical complications sometimes requiring surgery or resulting in death.

Typically, individuals with Pica are not averse to eating food (i.e. the behaviour is not due to an alternative eating disorder diagnosis such as eating ice or cotton to prevent hunger in Anorexia Nervosa), and will generally also eat normal foods.

The word 'Pica' comes from the Latin word 'pica', meaning magpie. Magpies collect and ingest non-food items.

### Prevalence of Pica

"Limited data suggest that the prevalence of Pica is approximately 5% among school-age children. Roughly one-third of pregnant women, especially those with food insecurity (i.e., without reliable access to affordable and nutritious food), engage in Pica." (American Psychiatric Association, 2022)

In Australia, the rate is largely unknown, and research is needed in this area.

#### Causes of Pica

The exact causes of Pica are not well known, and a range of factors may play a role.

Available research suggests Pica more commonly occurs in certain population groups:

- 1. Pica typically develops in childhood
- 2. Pica is more common in pregnant women
- 3. Individuals in developing countries are more likely to experience Pica.
- 4. Individuals who are institutionalised particularly due to an intellectual disability have an increased risk of developing Pica.
- 5. Pica commonly presents in individuals suffering from malnutrition, specifically anaemia (iron deficiency) and/or zinc deficiency.

These studies are limited and there is a need for further research into the prevalence and causes of Pica.

# **Treatment Options**

Treatment varies depending on Pica severity and the existence of any comorbid disorders.

Research on Pica interventions is limited, and studies present mixed results. However, proper screening is required to appropriately diagnose the specific medical and psychiatric conditions present for the individual.

The consumption of non-food substances may result in a range of medical conditions including infection, poisoning (lead), abdominal pain, gastrointestinal complications, dental enamel erosion, metal toxicities and various nutritional deficiencies.

## **Treatment Options (continued)**

Medical treatment may be required, even in the first instance, and in extreme cases surgical intervention may be required (e.g., to remove objects from the digestive system) prior to then focusing on behavioural change. Nutrition may also need to be restored through dietetic interventions.

Psychological treatment in the form of behavioural interventions may also be appropriate for individuals with Pica e.g., positive reinforcement training into edible vs. non-edible foods. Research suggests that when applied appropriately, behavioural interventions are effective at significantly reducing Pica.

There is no current evidence suggesting psychopharmacotherapy is of benefit in treating Pica.

For any person with Pica, it is important to seek care from an empathetic and skilled GP who can monitor physical health and remain involved in care throughout treatment.

American Psychiatric Association. (2022). Diagnostic and Statistical Manual of Mental Disorders, Text Revisior (DSM-5-TR), American Psychiatric Pub

Hartmann, A. S., Becker, A. E., Hampton, C. & Bryant-Waugh, R. (2012). Pica and Rumination Disorder in DSM-5. Psychiatric Appals. 42(11), 426-430.

Hong, E. and Dixon, D. R. (2017). Pica in Individuals with Developmental Disabilities. Handbook of Childhood Psychopathology and Developmental Disabilities Treatment. Springer: 287-299

Matson, J. L., Hattier, M. A., Belva, B. & Matson, M. L. (2013). Pica in Persons with Developmental Disabilities Approaches to treatment. Research in Developmental Disabilities, 34(9), 2564-2571

Young, S. L. (2011). Craving Earth: Understanding Pica the Urge to Eat Clay, Starch, Ice, and Chalk, Columbia University Press.