



PICA: A CRAVING

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KEYWORDS :

INTRODUCTION

Term Pica originates from the Latin word “Magpie” is a bird known to eat almost anything. Pica refers to compulsive intake of non food substances over a sustained period of time^{1,5}. It is a condition in which the person is experiencing an abnormal desire to eat substances that are not usually eaten. Your unusual cravings may be a sign that your body is trying to replenish low nutrient levels. Children's are often having tendency to put everything into their mouth so the condition is fairly common among children's. Surprisingly some children's doest have their breakfast at home and have their breakfast in the form of paper and other non food items just because they are hungry and need to survive¹. Pica appears much more frequently in young children than in adults².

FORMS OF PICA

There is various subtypes of pica. These subtypes are characterized by the substance eaten.

- Geophagia: compulsive eating of clay or dirt.
- Amylophagia :- compulsive eating of Starch
- Pagophagia :- compulsive eating of ice or freezer frost
- Tricophagia:- compulsive eating of hair
- Metallophagia:- compulsive eating of metals
- Coprophagia:- compulsive eating of feces
- Hyalophagia:- compulsive eating of glass
- Lithophagia:- compulsive eating of stones
- Acuphagia:- compulsive eating of sharp objects
- Plumbophagia:- compulsive eating of lead
- Cautopyreophagia:- compulsive eating of burnt matches
- Geomelophagia:- compulsive eating of raw potatoes
- Mucophagia:- compulsive eating of mucus
- Urophagia:- compulsive eating of urine
- Hematophagia compulsive eating of blood
- Coniophagia :- compulsive eating of dust
- Coprophagia:- compulsive eating of feces

These subtypes of eating should be present at least one continuous month to make the diagnosis³.

PREVALENCE

The prevalence of pica is difficult to establish because of reluctance of patients to admit to abnormal cravings and ingestion. An incidence of pica greater than 50% is considered normal in children aged 18 to 36 months. In the developmentally disabled, there are changes in incidence of pica with age, IQ, medication, and manifestations of behavior and appetite. An increased incidence of pica has been found to occur in patients with congenital anomalies and associated medical problems, such as diabetes, deafness, and seizures⁴. The incidence of pica has also been found to be increased in patients taking neuroleptics, which may be related to diminished postsynaptic dopamine receptor changes^{5,6}.

ETIOLOGY:-

- There's no single cause of pica.
- The etiology of pica seems to be very complex. Many environmental, nutritional, socioeconomic, physiologic, cultural, and psychiatric causes have been identified.
- Various theories postulated the possible nutritional like vitamin and mineral deficiencies as a cause of Pica^{7,8}.
- People with certain mental health conditions such as schizophrenia and obsessive-compulsive disorder may develop pica as a coping mechanism⁸.

- In pregnant women deficiency of iron, zinc, or another nutrient may be associated with pica.. 2. Roselle HA. Association of laundry starch and clay ingestion with anemia in New York City⁹.
- People with certain mental health conditions such as schizophrenia and obsessive-compulsive disorder may develop pica as a coping mechanism¹⁰.
- Some people may even enjoy and crave the textures or flavours of certain non-food items. In some cultures, eating clay is an accepted behaviour. This form of pica is called geophagia¹⁰.
- Dieting and malnourishment can both lead to pica. In these cases, eating non-food items may help you feel full¹⁰.
- Theories related to children's psychological deprivation and subsequent ingestion of inedible substances have suggested that PICA is a compensatory mechanism to satisfy oral needs¹¹.

HOW IS PICA DIAGNOSED?

There's no test for pica. Doctor will diagnose the condition based on history and several other assessments.

- It may be hard for them to determine you have pica if you don't tell them what you've been eating. The same is true for children or people with intellectual disabilities¹².
- Honest with your doctor about the non-food items you've eaten. This will help them develop an accurate diagnosis¹².
- Your doctor may test your blood to see if you have low levels of zinc or iron. This can help your doctor learn if you have an underlying nutrient deficiency, such as anaemia. Nutrient deficiencies may sometimes be related to pica¹².
- Eating non food items repeatedly after 18 months of age is usually considered abnormal¹².

DSM 5 CRITERIA FOR DIAGNOSING PICA

The Diagnostic and Statistical Manual of Mental Disorders, 5th edition, posits four criteria that must be met for a person to be diagnosed with pica¹³.

1. Person must have been eating non-nutritive non-foods for at least one month.
2. This eating must be considered abnormal for the person's stage of development¹³.
3. Eating these substances cannot be associated with a cultural practice that is considered normal in the social context of the individual¹³.
4. For people who currently have a medical condition (e.g.: pregnancy) or a mental disorder (e.g.: autism spectrum disorder) the action of eating non-nutritive non-foods should only be considered pica if it is dangerous and requires extra medical investigation or treatment on top of what they are already receiving for their pre-existing condition¹³.

PATHOLOGY AND LABORATORY EXAMINATION:-

No single laboratory test rule out the diagnosis of Pica, but several laboratory tests are helpful. Level of Iron and Zinc in serum should always be checked as in many cases these level are low and may contribute to the development of Pica. Another test could be serum lead level and Haemoglobin level¹¹.

WHO IS AT RISK OF PICA?

Few examples of risk factors and certain instances for eating non-nutritive substances are:

- Malnutrition – Common in underdeveloped countries, where people with pica most commonly eat soil or clay.
- Nutritional deficiencies (such as iron or zinc) – This may trigger

specific cravings. unfortunately, the non-food items craved usually don't supply the minerals lacking in the person's body¹⁴.

- Diets – In order to ease hunger, eating non-food substances to get a sense of fullness.
- Cultural factors – Families, religions, or groups in which eating nonfood substances is a learned practice. Certain religious rituals, folk medicine, and magical beliefs promote the consumption of various materials, such as eating dirt to incorporate magical spirits into their bodies¹⁴.
- Parental neglect – Often seen in children living in poverty.
- Several Mental health conditions
- Pregnancy¹⁴.

PICA DURING PREGNANCY

Pregnancy has a lot of challenges that need to overcome. One of the most common is to control the cravings. As your body changes, there will always be hormonal changes, and this can lead to extreme cravings which are not always healthy. While the exact causes of pica in women who are pregnant are not known, it is assumed by doctors that this is a natural way of your body telling you that you need vitamins, minerals or other nutrients. Doctors also assume that unnatural cravings in pregnant women could be an indicator of an underlying physical condition or a form of mental illness that is triggered due to hormones²⁰.

ARE THERE RISKS TO THE BABY?

Eating non-food substances is potentially harmful to both you and your baby. Eating non-food substances may interfere with the nutrient absorption of healthy food substances and actually cause a deficiency²¹. The urges can also be for items like plastic or paint which have toxic properties. It can be extremely harmful to both your baby and you²¹.

COMMON FOOD ITEMS:-

If you have pica, you may regularly eat things such as:

- ice
- soap
- buttons
- clay
- hair
- dirt
- sand
- the unused remainder of a cigarette
- cigarette ashes
- paint
- glue
- chalk
- feces

CONSEQUENCES:-

- The medical consequences of pica for mother and foetus vary with the nature of the substance ingested^{15,16}.
- Effects on the mother could include dental injury, constipation, intestinal obstruction, dysfunctional labor due to fecal impaction, parasitic infections, toxemia, interference with the absorption of minerals, lead poisoning, and hyperkalemia^{3,9,13}.
- Possible effects on the fetus include prematurity, perinatal mortality, low birth weight, irritability, decreased fetal head circumference, and exposure to chemicals such as lead, pesticides, and herbicides^{3,5}.
- **Bezoar**
- (a mass of undigestible material trapped inside the body, most often in the stomach)
- Physical findings may include the following:
- Manifestations of toxic ingestion (eg, lead poisoning)¹⁷
- Manifestations of infection or parasitic infestation (eg, toxocariasis and ascariasis)
- GI manifestations (eg, mechanical bowel problems, constipation, ulcerations, perforations, and intestinal obstructions)¹⁷.
- Dental manifestations (eg, severe tooth abrasion, abfraction, and surface tooth loss)¹⁷.

WHAT IS THE OUTLOOK FOR PEOPLE WITH PICA?

Pica usually begins in childhood and typically lasts for just a few months. However, it is likely to be more difficult to manage in children who are developmentally disabled. The success of treatment will vary. In many cases, the disorder lasts for several months and then disappears by its own. But in some cases, the disorder may continue

upto teen years or adulthood, especially when it occurs with developmental disorders¹⁸.

TREATMENT

Treatment should first address any missing nutrients or other medical problems, such as lead poisoning.

Treating pica involves behaviors, the environment, and family education. One form of treatment associates the pica behavior with negative consequences or punishment (mild aversion therapy). Then the person gets rewarded for eating normal foods.

Medicines may help reduce the abnormal eating behaviour if pica is part of a developmental disorder such as intellectual disability¹⁹.

PICA PREVENTION TIPS

Although there is no specific prevention of Pica. Getting adequate nutrition may help²⁰. But some preventive tips are:-

- Teach the child what is safe and not safe to eat.
- Educate the children about food and non-food items or substances.
- Educate about the ill effects and consequences of eating non-food items.
- Offer your child plenty of well balanced diet, meal, liquid and snacks
- Store any craved non food item out of the children's reach²².

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