

PICA-- THE HEALTH IMPLICATION OF A NON-- FOOD DIET

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ABSTRACT

PICA is an acronym that stands for Picking It, Ignoring It, Chewing It, and Chewing It Again. This refers to the practice of consuming inedible substances such as stone, bricks, chalk, soap, paper, and other such items. This may take the form of a routine or an action. This disorder is more likely to occur in young children who form their first impressions of the outside world through their mouth cavities. This can be attributed to a variety of factors, some of which include a deficiency in iron and zinc, amongst other possibilities. Because of the potential for these issues to have a detrimental impact on the dentition that is still in the process of developing, it is our responsibility as dentists to be able to identify and treat them. The purpose of this case study is to draw attention to the relevance of accurately identifying and treating people who have pica. Pica is an acronym for "increasingly compulsive eating," which describes compulsive eating of objects that may or may not be linked to food. Ingesting large quantities of the chemical without paying any consideration to the possible adverse consequences on one's diet is a frequent habit that is widely accepted. The English word "magpie" comes from the Latin phrase "pica," which refers to a bird that, according to a popular urban legend, never stops gathering items to satisfy its innate curiosity. In other words, a magpie never throws anything away. There is a wide range of jargon that has been applied in order to provide a description of the different picas. These two terms have a same root in Greek, which indicates that they originally meant "the stuff that is eaten," which was followed by phagia, which is the Greek word for "eating."

Keywords: *Health Implication, non-food diet, pica, iron deficiency, geophagia, trichophagia, hepatomegaly.*

INTRODUCTION

The term "pica" is used in psychiatric and medical dictionaries to describe the practice or habit of eating things that are not meant to be taken as food. Pica is really quite prevalent in children since this is one of the primary ways in which they learn about the world, which is to put things into their mouths. Unfortunately, some children do not have breakfast at their houses, and when they are sufficiently famished, they would eat everything, even paper and other items, just to fulfil their needs for something to eat.

More so than elementary school pupils, infants go through a stage of development in which they put anything and everything they find in their mouths. This includes their own feet. This developmental stage often continues for a longer period of time than it does for children of a later age. The vast majority of the time, children go on to something else that is more engaging and holds their attention, and they forget about whatever they had previously

been chewing on or putting in their mouths. If a child has been through this stage of growth and is at an older age but all of a sudden begins consuming items that are not food, there may be a problem of some kind. In this particular situation, there is a good chance that there is a cause for it that can be determined and eradicated.

Iron, zinc, or calcium deficiencies are some of the other probable causes for this condition. Patients who are iron deficient may have variable degrees of pica at various points throughout their illness. The specific physiological processes that lead to the development of the disease are not fully known. As a necessary component of their therapy, patients may be required to ingest unusual substances such as ice, soil, clay, or laundry starch. Clay and starch both have the tendency to bind iron in the digestive tract, which can exacerbate an existing lack of iron and make it much more difficult to absorb. In the 1960s, there were reports of children living close to the border between Iran and Turkey suffering from iron deficiency. These children were young adults. This event provides as a vivid illustration of the problems that may develop as a result of ingesting clay, and it serves as such an example. Other unusual abnormalities, such as severe hepatosplenomegaly, poor wound-healing, and a bleeding diathesis, were observed in these youngsters as well. These children also had a poor ability to heal wounds. The children presumably began off with a simple iron deficiency that was accompanied by pica, which can also involve geophagia. This led to the development of their eating disorder. Iron and zinc were not free to move because the soil contained compounds that locked them in place. The secondary zinc deficiency was the cause of the hepatomegaly as well as the other unique abnormalities that were seen.

There is a chance that this ailment can be traced back to an additional fundamental reason. It has a considerable percentage of lead in its composition. As a result of the presence of lead-based paint in older homes, children who live there or visit for extended periods of time are at an elevated risk of lead poisoning. This is due to the fact that the paint in these homes was originally manufactured with lead. The vast majority of these buildings were constructed before to the 1970s, at which time it was permissible to use paint containing lead. On the other hand, lead may come from a variety of other places, including certain types of medications, certain types of ceramics, and a few other places.

Both a nutritional hypothesis and a physiological theory have been put forward as potential explanations for its supposed beginnings. Both of these hypotheses have their strengths and weaknesses. According to the nutritional theory, certain food cravings are brought on by abnormalities in appetite-regulating brain enzymes, which occur when an individual is lacking in either iron or zinc. However, the non-food items that are craved almost never provide the minerals that are lacking in the body of the person who is craving them. The physiological theory that seeks to explain pica says that consuming clay or dirt during pregnancy may help reduce nausea, regulate diarrhea, promote salivation, remove toxins and affect a person's sense of aroma or taste. Additionally, this hypothesis suggests that this behavior may assist eliminate toxins.

In spite of the enormous number of explanations that have been proposed, not a single one of them can explain for all of the many varieties of pica. As a consequence of this, properly identifying and managing the treatment of disorders of this nature is of the highest significance. We present a case study of pica in order to demonstrate the importance of obtaining an accurate diagnosis and the most appropriate treatment for one's condition.

What exactly is the definition of a pica?

Pica is a sort of compulsive eating disorder in which a person consumes things that are not food and serve neither a nutritional nor a functional purpose in their body. Pica is characterized by the inability of the individual to control their eating habits. It is possible that when a person engages in this behavior and the reasons why they do so will decide whether or not this action is regarded usual, expected, or harmless. However, the potential for serious complications exists in the event that a person with this illness consumes anything that is potentially hazardous to their health or poisonous.

The origin of the term "pica," which is pronounced "PIKE-ah," may be traced back to the Eurasian magpie, whose scientific name in Latin is Pica. This bird has gained notoriety due to the fact that it is known to include strange objects in its diet.

Who is likely to experience the symptoms of pica?

Pica may strike anyone at any age, but the people who are most likely to be affected by it are those who fit into one of the following three categories:

- Young children, especially those under 6 years old.
- Women who are pregnant.
- People with certain mental health conditions, especially autism spectrum disorder, intellectual disabilities or schizophrenia.

What percentage of people suffer from the ailment pica?

Pica is a problem that affects a reasonable number of people, despite the fact that the exact incidence of the sickness is unknown to specialists in the medical field. This is partly attributable to the fact that various research articles typically use a variety of terminology to refer to the same condition.

In addition, it is common practice for medical practitioners to entirely ignore the sickness in the individuals they treat. It is possible for this to occur when individuals make the conscious decision not to address it with their physician or when parents make the conscious decision not to report indications of the disorder in their children. Both of these decisions put the individual at risk.

It is a normal aspect of a baby and young child's development to put things in their mouth-especially when they are very young. The symptoms of this particular form of pica often clear up by themselves and very quickly, once the child grows up.

How does this sickness manifest itself in my body, and what type of repercussions does it have?

Pica is a condition in which a person regularly consumes inedible things that have no nutritional value and are not perceived to be food. This type of behavior is not considered to be normal eating behavior. Due to the compulsive

nature of the illness, those who have it have a very hard time regulating the impulse on their own. This is because the disorder causes them to have obsessive behaviors'.

A condition known as pica is when a person consumes things that are not meant for human consumption. The outcomes of this activity are likely to be somewhat unpredictable. If a pregnant woman is the kind of person who routinely consumes things like ice, then engaging in pica is entirely safe for her to do during her pregnancy. It's possible that some people will end up swallowing dangerous or toxic chemicals as a result of this.

Pica can be bad for your teeth, but the amount of the damage depends on the foods that you eat when you have it. Even if you consume food that is not inherently dangerous, you nonetheless face the risk of experiencing negative consequences as a result of doing so in the long run. People who have the condition known as trichophagia, which causes them to eat their own hair, put their digestive tract in danger because the hair can become lodged in the digestive tract and cause obstructions, tears, or other types of damage.

Geophagia is the practice of eating dirt or clay, which puts a person at danger of catching soil-dwelling parasites. This practice is also known as "geophagy." It is possible for a human to become ill by eating excrement (poop), particularly if the feces are from a pet and have the potential to carry parasites or other infectious agents.

Negative effects on a person's mental health and its consequences

As a common side effect of their condition, those who suffer with pica typically report experiencing emotions of embarrassment and humiliation. Because of this, people who have this condition typically do not seek treatment, and even those who do may be hesitant to discuss it openly with their healthcare professional due to the stigma associated with the topic.

The Symptoms As Well As the Fundamental Causes

The only sign of pica is compulsive eating of things that aren't considered food and provide no nutritional value or other advantage to the body. Pica only manifests itself in just one symptom. The vast majority of people who suffer from this condition have a specific non-food item that they like consuming in their own time.

On the other hand, pica can lead to a number of other illnesses and disorders, each of which has its own particular collection of signs and symptoms. In addition to these symptoms, the eating disorder known as pica can also lead to anemia, which is brought on by an inadequate supply of iron in the body.

- Ascariasis, sometimes referred to as an infection that is brought on by roundworms.
- Abnormal bowel movement.
- Electrolyte imbalance.
- Abnormal heartbeats, sometimes referred to as arrhythmias in the medical field.
- Poisoning caused by lead exposure.

- A condition in which the small intestine and/or the large intestine are both obstructed or blocked.
- Consumed items that do not fall under the category of food.

The following is a list of items that are often ingested by individuals who have pica:

- Talcum powder, often known as baby powder.
- Ash.
- Chalk.
- Charcoal, along with clay, dirt, or soil.
- Coffee that has been ground and used.
- Eggshells.
- Any and all types of excrement (also known as "poop").
- Some means of securing it, such as hair, twine, or thread.
- Starch for the cleaning of the clothes.
- Ice.
- Pieces of paint,
- Paper,
- Pebbles,
- Pet Food,
- Soap,
- Wool or Cloth,
- Fragments of Paint, etc.

What causes pica?

The precise reasons why certain people have pica are a mystery to those who work in the medical field. Researchers have identified a variety of risk factors that, when combined, increase the probability of developing the illness.

Behavioral expectations that are either innate or acquired over time. In some cultures and religions, partaking in some forms of pica is deemed acceptable and, in most cases, is encouraged by society. This is also the case in several countries. Visitors to El Santuario de Chimayo, a Roman Catholic shrine in New Mexico, United States of America, are urged to eat dirt as part of a religious event that takes place at the site. An example of this in South African culture is something that takes place often in the cities of that country, where the practice is common among young ladies and serves as a cultural illustration.

Anxiety, stress, or both may be the cause. Pica is one type of release or coping method that might be helpful to those who deal with the aforementioned concerns.

Pica is found in the youngster subjected to conditions that are adverse to their growth. Pica is more likely to develop in children who are raised in bad socioeconomic conditions (such as poverty), however the reasons for this are not completely known. One of the possible explanations for pica is that it is a coping mechanism for children to deal with painful situations, such as being neglected or mistreated, and this might be one of the reasons why youngsters engage in this behavior. There is also the possibility that the activity is an attempt to get someone's attention, particularly in circumstances in which either one or both of the child's parents are absent for whatever reason.

Nutritional deficiencies. People who exhibit the symptoms of pica typically have dietary deficiencies that relate to minerals or other nutrients. Pica is a rare eating disorder. An iron deficit, often known as anemia, a calcium shortage, and a zinc deficiency are the three nutritional deficiencies that are most likely to be present in persons who exhibit these symptoms.

Disorders that have an impact on a person's mental health. These include conditions that a person might have as a result of their own actions, conditions that they were born with as a result of disruptions in the way that they grew in the womb, and genetic diseases that a person inherited from their parents.

A person's health-related worries or concerns. It is possible to demonstrate a connection between the condition known as pica and pregnancy, in addition to sickle cell anemia.

When someone takes certain medicines, the risk that they may develop pica or actions that are similar to pica increases significantly. On the other hand, it is unknown whether or not people who take these medications would get pica as a side effect.

Even though it is a compulsive conduct, the great majority of people who have pica do not suffer from any form of mental illness. This is true despite the fact that pica is a disorder that involves obsessive behavior. The eating disorder known as pica is often a sign of a more serious underlying medical problem, the most frequent of which is anemia, which is brought on by a deficiency in iron. On the other side, compulsive eating, particularly of substances that aren't meant to be consumed by humans, can be a big source of embarrassment and disdain for the individual. Because of this, a relatively limited proportion of people go to the doctor to complain about their odd habit of eating. Patients, in the vast majority of cases, have the misconception that their behavior is an indication of a troubled mind, and as a result, they are reticent to admit that they are suffering this symptom. It is crucial for a

physician to ask questions of a patient who may have pica in a way that is welcoming and does not cast judgement on the answers.

Because it is so unusual for a patient to present with pica as the primary symptom, the interviewing process may need to be approached with extreme caution. During the course of the conversation about the history of food, the topic might be brought up. The first thing that has to be done is to get some information from the patient regarding their regular diet. This information should include when their meals are, how much food they eat, how often they snack, and what they snack on. After that, a follow-up leading question might be asked in a manner that does not pass judgement, such as "Are there things you feel you simply must eat?" or "Do you find yourself craving certain foods?" These two inquiries are great examples of leading questions that are not judgmental in any way. The objective is to coerce the patient into admitting that they have participated in this activity in the past.

One strategy that has been demonstrated to be beneficial is to begin by providing an explanation of the reasoning for the questions that are being asked (for instance, "Many individuals who have low iron have different eating habits."). It's probable that if you provide the patient some instances of foods that other people have consumed, it will encourage them to give you a positive response. When someone understands the motivation behind their action, they are often able to experience a sense of relief. If the circumstances around the event are different, it is possible for a person to be unaware that what they consider to be a "habit" may in fact be a pica. It's possible that the usage of anything on a regular basis, like ice cubes, won't be seen as a pattern of conduct that has a basis in pathophysiology. This is something that's definitely plausible. When one brings up the topic of pica, one opens the door for a dialogue about eating patterns that the patient may regard as being harmless, but which offer the attending physician with more information. These practices include consuming things that the patient may not even realize they are eating.

Because pica frequently involves the disruption of daily activities (such as waking up in the middle of the night to eat or engaging in other covert behaviors'), it may be necessary to question a member of the patient's family. This is because a pica frequently involves the disruption of daily activities. However, in the majority of cases, the patient's feelings of humiliation make it preferable and more likely to be fruitful to conduct the interview with the patient by herself or herself. This is because the patient will feel more in control of the situation.

After it has been established that the patient does in fact have a pica, the patient needs to be given some additional information. For instance, when treatment for an iron deficiency is begun, the symptoms of pica begin to resolve rather rapidly, often within a few days. In point of fact, it is not impossible for the patient to develop a dislike or contempt for the object that was desired in the past. This is one of the potential outcomes of the treatment. This kind of response is to be expected, and it demonstrates that the treatment is working as intended. In addition, when there is a scarcity of iron, people who have pica sometimes have a demand for the same substance that is in limited supply. If a patient is aware of what a pica is and what it signals, then they will be more equipped to decide whether or not they need further investigation in the event that the desire happens again.

The disorder known as pica presents itself in children in a variety of unique ways, and the technique for obtaining information is aimed more at the parent than it is at the kid. An in-depth investigation of the individual's eating

habits, particularly those associated with activities that involve the use of the mouth, is carried out. It is possible that extensive investigations supported by drawings may be necessary.

Clinical Significance

The significance of a pica from a clinical standpoint may be divided down into three individual categories. To begin, the relevance of the underlying sickness that produces pica cannot be emphasized. This is the first and most important point. The type of "pica" that is regarded to be the most widespread among the general public is the longing for a particular meal (such as pickles), which can occasionally arise during pregnancy. Even if there is a serious iron deficiency, the significance of this is not readily apparent in the majority of instances. In point of fact, iron deficiency is probably the condition that is responsible for adult cases of pica in our country more frequently than any other ailment. Since it has been demonstrated that the onset of pica is not associated with the cause of iron deficiency, a diagnostic investigation into the etiology of the condition is absolutely necessary.

Another clinical aspect that needs to be taken into account is the ingestion of whatever chemical is chosen to complete the pica. It's possible that the object may be anything at all that comes to mind. Only those drugs for which a name has been coined and described in the appropriate medical literature are included in this listing. In point of fact, the list of materials chosen could never be exhaustive; however, it would be required to contain at the very least peanuts, potato chips, carrots, parsley, lettuce, toast, mint leaves, celery, peanut butter, raw potatoes, orange peel, tomato seeds, coffee grounds, baking soda, charcoal/soot, mortar, tire inner tubes, and sawdust. A list such as this one would not evoke anything other than shock if the item in issue did not have a substantial influence on the health of individuals. A person, for instance, who had a pica for mothballs and toilet bowl fresheners acquired hemolytic anemia as a result of their lifestyle. This was due to the consumption of these items in large quantities. Geophagia in pregnant women has been associated to intestinal blockages and perforations, in addition to premature labor. Consuming particular meals or having particular hair types can both lead to the development of bezoars. Mercury poisoning has been reported as a result of a pica for paper, which includes the packing of cigarette packs and tissue box contents. It has been hypothesized that ingestion of clay can create hypokalemia in certain situations while it can produce hyperkalemia in other cases, depending on the severity of the disease. On a level that is less odd and more common, amylophagia can lead to obesity while also failing to give the required food during pregnancy. This is a double whammy that can have a negative impact on both the mother and the developing baby. In conclusion, a pica can have devastating implications, which is why diagnosing it and seeking treatment for it are both very vital requirements. In addition, a pica can be caused by a number of different factors.

In conclusion, many people who have a pica are aware that they are engaging in an abnormal conduct and, as a result of this knowledge, suffer emotions of humiliation or shame. This is true for a large number of people who have a pica. It's possible that these individuals' relatives and friends made fun of them because of their addiction, or that they went to great lengths to hide it from others around them. Either way, it's plausible that these people were addicted to something. The patient could develop a sense of gratitude if they are first provided with an explanation of the sickness, then with the appropriate treatment, and finally with their need being met.

It could be challenging to find a pica if you try to find one. The physician can practice their keen questioning talents, come at an appropriate diagnosis, and hope that the treatment would bring an end to the condition once and for all.

There are relatively few diseases that can be remedied in a way that will leave both the patient and the treating physician content with the outcome.

CONCLUSION

The clinical relevance of pica symptoms is still not well appreciated, particularly among younger medical experts, despite the fact that the condition has been present for millennia. When the underlying issue that was causing our patients to lose blood was treated, as well as when they were given iron supplements, both of our patients had favorable results. We are certain that pica is an important sign of iron deficiency. As a result, medical professionals treating patients who present with pica symptoms should be prepared for concealed blood loss on account of the fact that pica is an essential indicator of iron deficit. Pica is a mental health condition in which a person compulsively consumes inedible things, such as dirt or sand, in an attempt to satisfy their cravings. Children and those suffering from certain diseases have an especially high risk of contracting it. Pica isn't necessarily harmful, but there are some items that, if consumed, may quickly turn it into a very severe condition. The good news is that it can frequently be addressed via psychotherapy as well as adjustments in lifestyle and other aspects of one's surroundings. The bad news is that it is quite common.

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