Uncovering Your HPP Roots

See the impact hypophosphatasia (HPP) can have on a family tree.

What You Need to Know About HPP

Hypophosphatasia (HPP) is a lifelong condition with symptoms that may show up at any age and can get worse at any time. Like most rare diseases, HPP is commonly passed down through families.

HPP happens when an important enzyme called alkaline phosphatase (ALP) isn't working like it's supposed to. ALP helps your body do important jobs, such as:

1. Build strong bones
2. Keep your brain healthy
3. Support muscle strength

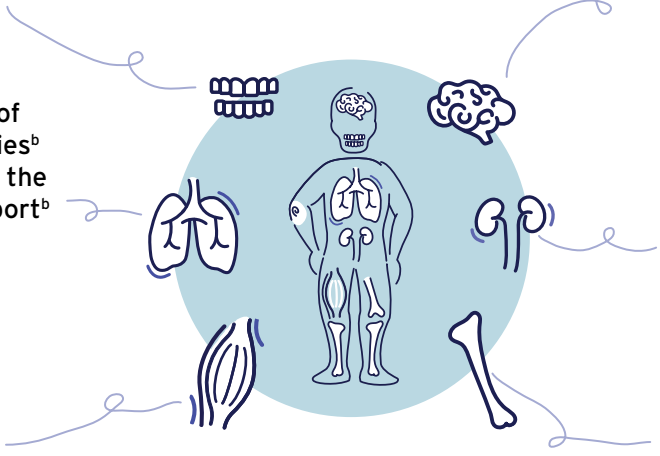
You may feel HPP symptoms in many parts of your body

HPP can feel like pain, headache, fatigue, or muscle weakness. HPP can also make bones more likely to break or fracture while other symptoms, such as brain fog, can be subtle and hard to put into words. The most common signs and symptoms of HPP are below, but it can look very different for different people—so this list may not be fully relevant to everyone[a]:

TEETH
- Early tooth loss with the root intact[b]
- Gum disease

LUNGS
- Improper development of ribs and chest deformities[b]
- Difficulty breathing and the need for breathing support[b]
- Pneumonia

MUSCLES/JOINTS
- Weakness
- Pain
- Joint inflammation
- Gout-like symptoms
- Muscle fatigue
- Missed motor milestones[b]
- Mobility issues



BRAIN
- Brain fog/problems with thinking or memory
- Seizures[b]
- Headaches
- Fatigue

KIDNEYS
- Calcium buildup
- Kidney impairment

BONES
- Premature closure of skull bones, leading to an abnormally shaped head[b]
- Rickets[b]
- Chronic bone pain
- Frequent or slow-healing fractures
- Weak bones or bowed legs

HPP can look like many other conditions and is often misdiagnosed in adults as fibromyalgia, osteoporosis, or arthritis.

[a]This is not an exhaustive list of HPP signs and symptoms.
[b]Symptoms commonly seen in infants and young children.

This information is intended as educational information for patients and their doctors. It does not replace a doctor's judgment or clinical diagnosis. Speak with your doctor about your medical condition and any specific symptoms that you may be experiencing.

HPP Runs in the Family

An inherited condition

In most cases, HPP is a treatable condition that can be passed down through families. Because HPP can look different for different people, some of your relatives may unknowingly have it and not recognize any symptoms they might have. That's why it's important to go through your whole family tree and see who might be interested in learning more about HPP.

Use the signs and symptoms from the previous page to help you think through your family health history while you fill out the tree.

Grandparent generation

Maternal (Grandma, Great Aunts, & Uncles)

Paternal (Grandpa, Great Aunts, & Uncles)

Parent generation

Maternal (Mom, Aunts, & Uncles)

Paternal (Dad, Aunts, & Uncles)

Your generation

Maternal (Cousins)

You & your siblings

Paternal (Cousins)

Child generation

Maternal (First cousins once removed)

Children, Nieces, & Nephews

Paternal (First cousins once removed)

Grandchild generation

Maternal (First cousins twice removed)

Grandchildren, Grandnieces, & Nephews

Paternal (First cousins twice removed)

Print and use these cards to share important HPP resources with your family members and to help start a conversation about the signs and symptoms of HPP.

I'd like to tell you about HPP, a condition that's in our family.

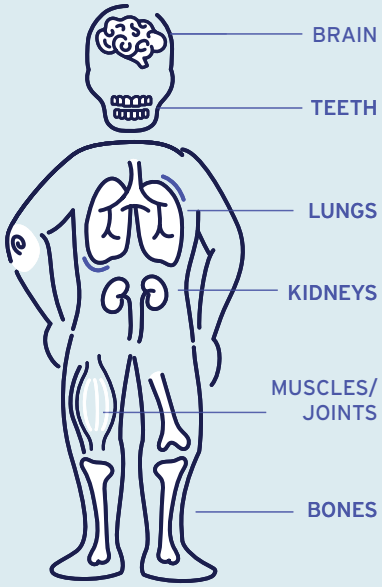
Hypophosphatasia (HPP) happens when an important enzyme called alkaline phosphatase (ALP) isn't working like it's supposed to. ALP helps your body do important jobs, such as:

1. Build strong bones
2. Keep your brain healthy
3. Support muscle strength

HPP can look different for different people.

Symptoms can appear in many different parts of the body. Some are more obvious—such as bone issues, headaches, pain or muscle weakness—and others can be subtle and hard to put into words, like fatigue and brain fog. It's important for everyone experiencing symptoms to talk to their doctor, so they can get the care that's right for them.

If any of this feels familiar to you, I'd encourage you to learn more about HPP and check your own symptoms by scanning the QR codes on the back of this card.



Scan these QR codes to help understand the impact HPP can have and how it may be affecting your health.

HPP Stories
qr.short.az/r/lq0gxx14jycsddt

HPP Symptom Checker
qr.short.az/r/rc5yy7h14b5gpzi

Talk to your doctor. Only a medical professional can diagnose HPP.

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AstraZeneca Rare Disease

Liesl (right) and Adelyn (second from left)
LIVING WITH HPP,
PICTURED WITH THEIR FAMILY

What Your Family Shares Is More Important Than Ever

Hypophosphatasia (HPP) symptoms can be different from person to person, even if they're related. It's important to talk with your family about your experience, share any information or resources you've found to be helpful, and encourage them to do their own research and talk to their doctor.

Only a medical professional can diagnose HPP.

Scan these QR codes to start important conversations with your loved ones about the signs and symptoms of HPP.

Soft Bones Family Resource
qr.short.az/r/kgtuqqz1koefiar

HPP Stories
qr.short.az/r/lq0gxx14jycsddt

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