

# The Absence or Deficiency of Parathyroid Hormone Is Linked to Multi-Organ Manifestations<sup>1</sup>

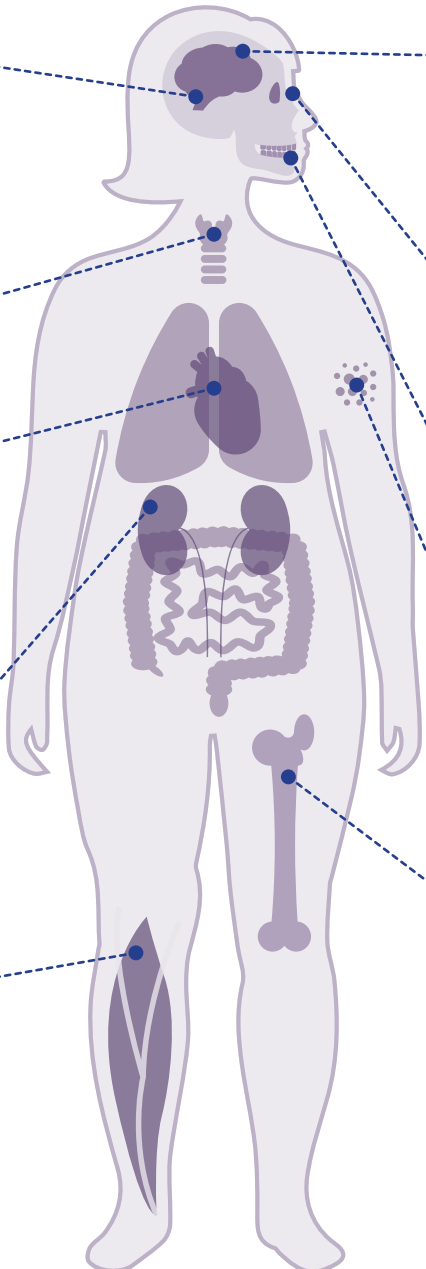
Use this helpful checklist and the questions on the back to foster meaningful conversations between patients and healthcare providers about the experience of living with hypoparathyroidism.

Patient Name: \_\_\_\_\_

DOB: \_\_\_\_\_

Appointment Date: \_\_\_\_\_

## Clinical Manifestations of Hypoparathyroidism<sup>1,2</sup>



**CENTRAL NERVOUS SYSTEM**

- Seizures
- Basal ganglia calcifications
- Parkinsonism or dystonia

**RESPIRATORY SYSTEM**

- Laryngospasm

**CARDIOVASCULAR SYSTEM**

- Vascular calcifications
- Cardiac arrhythmias
- Hypocalcemia-associated dilated cardiomyopathy

**RENAL SYSTEM**

- Nephrocalcinosis\*
- Nephrolithiasis\*
- Chronic kidney disease\*

**PERIPHERAL NERVOUS SYSTEM**

- Paresthesia
- Muscle cramps
- Pain
- Tetany

**NEUROPSYCHIATRIC SYSTEM**

- Symptoms of anxiety and depression
- Cognitive impairment ("brain fog")

**OPHTHALMOLOGICAL SYSTEM**

- Cataracts
- Papilledema

**DENTAL SYSTEM**

- Altered tooth morphology

**DERMATOLOGICAL SYSTEM**

- Dry skin
- Thinning hair
- Brittle nails

**MUSCULOSKELETAL SYSTEM**

- Myopathy
- Spondyloarthropathy

\*These manifestations are mostly the result of treatment with pharmacologically high doses of calcium and calcitriol (active vitamin D) rather than of the disease itself.<sup>1</sup>

# Patients With Hypoparathyroidism May Experience Reduced Physical Functioning and Well-being<sup>1,3</sup>

In a study of 203 patients with hypoparathyroidism, 48% experienced reduced well-being despite achieving recommended serum calcium levels with conventional therapy.<sup>4\*</sup> Discuss and record the questions below to better understand your patient's experience and help determine if their HypoPara is currently being addressed.

**Does your hypoparathyroidism impact your daily life and physical functioning in any of the following ways?**

- I feel weak or have difficulty moving my body
- I have difficulty making plans
- I feel cramps, spasms, numbness, tingling, or pain
- I have issues with concentration or memory
- I feel anxious or depressed

Other:

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**Have you done any of these things in your daily life because of your hypoparathyroidism?**

- Planned your day around your symptoms
- Stopped what you were doing due to your symptoms
- Taken breaks/paced yourself while doing activities

Other:

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**What situations in your daily life have been impacted by your hypoparathyroidism?**

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**What feelings or emotions have you experienced due to your hypoparathyroidism?**

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**Note any medications and/or supplements you currently take to manage your hypoparathyroidism, how much, and how often. Include any additional doses taken "as needed" to address your symptoms.**

Medication/Supplements


Dose

How often

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 **know HypoPara™** Visit [KnowHypoPara.com](https://www.knowhypo.com) to discover more about hypoparathyroidism.

\*The study objective was to examine the Health-related Quality of Life (HRQoL) and comorbidities in patients with hypoparathyroidism and to estimate the need for treatment with PTH. 203 patients with hypoparathyroidism from Gothenburg, Sweden were compared with a population sample from the same city. Of those 203 patients, data were assessed in 106. Health-related quality of life (HRQoL) was assessed by two validated questionnaires: Short Form-36 questionnaire (SF-36) and EuroQol-5 Dimensions Visual Analogue Scale (EQ5D-VAS).<sup>4</sup>

HypoPara = hypoparathyroidism.

**References:** 1. Mannstadt M, Bilezikian JP, Thakker RV, et al. Hypoparathyroidism. *Nat Rev Dis Primers*. 2017;3:17055. 2. Shoback DM, Bilezikian JP, Costa AG, et al. Presentation of hypoparathyroidism: etiologies and clinical features. *J Clin Endocrinol Metab*. 2016;101(6):2300-2312. 3. Brod M, Waldman LT, Smith A, et al. Living with hypoparathyroidism: development of the Hypoparathyroidism Patient Experience Scale-Impact (HPES-Impact). *Qual Life Res*. 2021;30(1):277-291. 4. Kontogeorgos G, Mamasoula Z, Krantz E, et al. Low health-related quality of life in hypoparathyroidism and need for PTH analog. *Endocr Connect*. 2022;11(1):e210379.