



Reducing Physical and Financial Chronic Pain

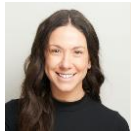
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Today's Agenda



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Physical Therapist

Reducing the physical and financial burdens of chronic pain

- 01 The multidimensional nature of pain
- 02 What shapes pain experiences
- 03 Impact on recovery
- 04 A person-centered approach to pain
- 05 Moving beyond pain

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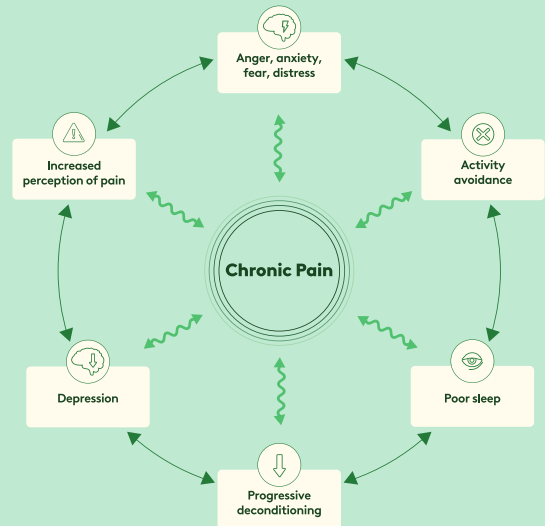
The multidimensional nature of pain

Unpacking the complexity of pain

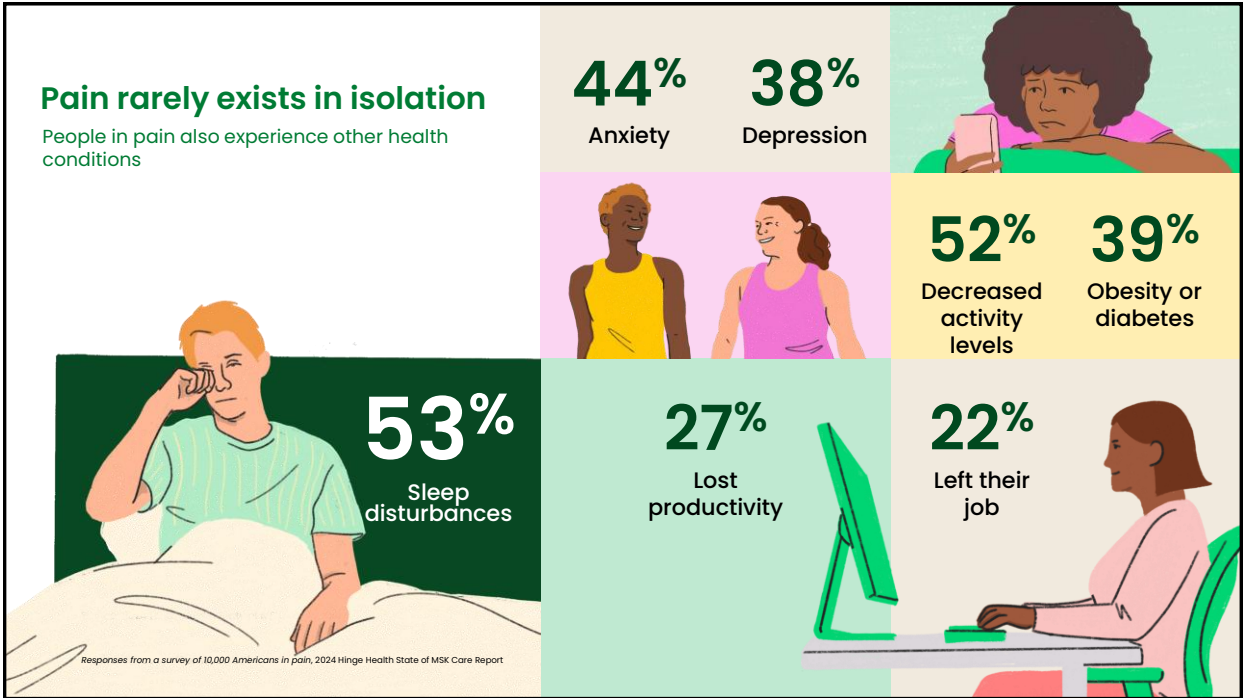
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Pain is complex, and everyone experiences it differently

If pain is perceived with high levels of fear, it causes an individual to experience increasing stress and anxiety with decreasing levels of activity, which causes pain levels to rise.



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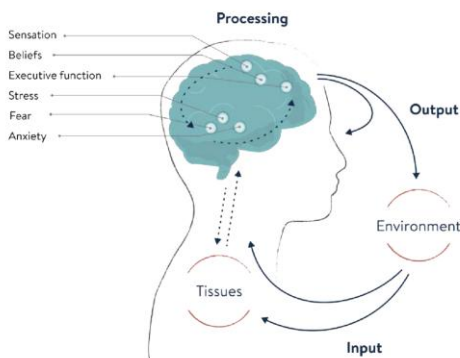
What shapes pain experiences

Understanding the nervous system, stress, and beliefs

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The mind-pain connection

The brain processes many inputs to heighten or dampen pain intensity



85%

of members with chronic back pain do not have any identifiable structural cause of their pain

Koch C and Hånsel F (2019) Non-specific Low Back Pain and Postural Control During Quiet Standing—A Systematic Review. *Front Psychol.* 10:586. <https://doi.org/10.3389/fpsyg.2019.00586>

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Pain is not an indicator of damage



A builder accidentally jumped on a 15 cm nail that penetrated his work boot causing uncontrollable pain and distress despite no actual physical damage.



WWII Veteran without any pain had a routine chest x-ray that found a bullet in his neck from 60 years ago

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Depression-pain dyad

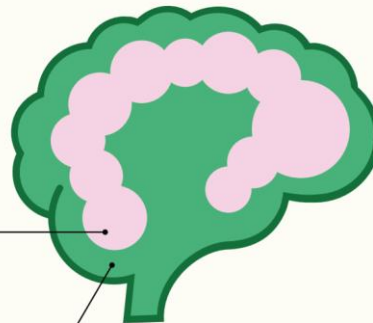
Shared neural pathways affect the same regions of the brain

Amygdala (Emotional processing center)

Depression lowers the amygdala's ability to control emotional response to pain, leading to feeling helpless to overcome pain.⁶

Neurotransmitters

Pain and depression decrease critical neurotransmitters. MSK pain depletes the levels of the neurotransmitter GABA, which leads to increased stress, hypersensitivity, and higher risk of depression.⁷



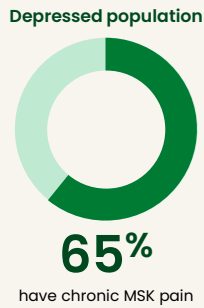
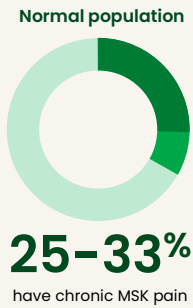
Hippocampus (Learning & memory center)

Depression raises the intensity of both physical and emotional pain, causing the hippocampus to create a cycle of pain that becomes learned and chronic.⁸

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Clinical connection

Depression increases the risk for chronic MSK pain



Sources: WHO. Musculoskeletal Conditions. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/musculoskeletal-conditions>. Published 2019. Accessed July 17, 2020. Kim KW, Han JW, et al. Association between comorbid depression and osteoarthritis symptom severity in patients with knee osteoarthritis. *J Bone Joint Surg Am*. 2011 Mar 16;93(6):556-63.

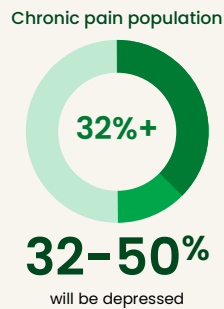
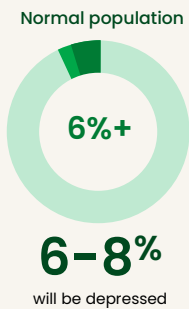
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Clinical connection

Chronic MSK pain increases risk for depression



- ✓ **Associated with relapse**
Of patients who relapse, **94%** have at least mild/moderate pain
- ✓ **Blunts effects of anti-depression treatment**

Veronese N, Stubbs B, et al; Association between lower limb osteoarthritis and incidence of depressive symptoms: data from the osteoarthritis initiative. *Age Ageing* 2017; 46 (3): 470-476. Bair MJ, Robinson RL, Katon W, Kroenke K. Depression and Pain Comorbidity: A Literature Review. *Arch Intern Med*. 2003;163(20):2433-2445.

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Most commonly heard myths surrounding chronic MSK pain

- Rest is best
- Pain = Damage
- I'll need surgery to fix it
- Medications are the only thing that will help
- It's a normal part of aging

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People's' mindsets about their pain matters



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Stretch Break #1



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Seated side bend reach

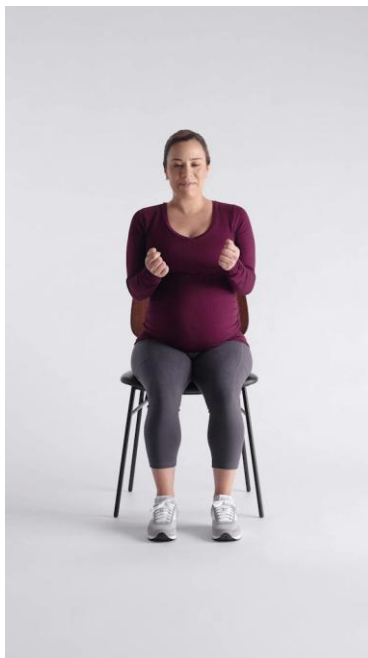


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Seated scapular squeezes



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What can impact recovery

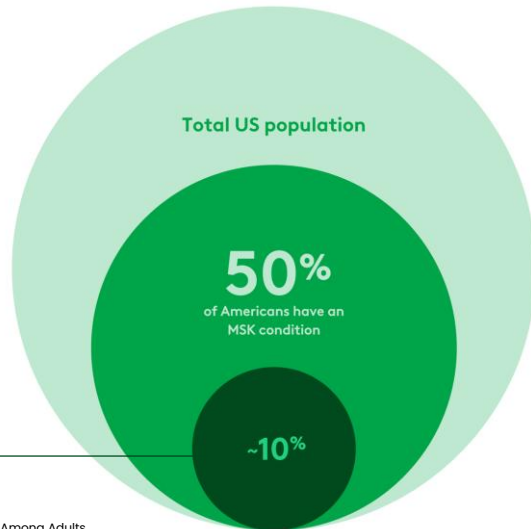
Lifestyle, environment, and financial burdens

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Half of Americans have an MSK condition yet only 10% are currently seeing a PT for their pain

10%

Of Americans use in-person physical therapy in a given year



Boersma P, Cohen R. Physical, Speech, Rehabilitative, or Occupational Therapy Use Among Adults Aged 25–64, by Veteran Status: United States, 2019–2020. NCHS Data Brief No. 439, 2022.

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Why aren't people in pain using PT?

29% Too expensive

19% I don't have the time

18% I don't believe professional treatment will help my condition

14% I'm not sure of my insurance coverage

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Social determinants of health that impact MSK care



Access to care and transportation

73% of patients miss at least one PT appointment



Income

Lower-income patients are 1.5x more likely to use opioids



Race and ethnicity

2/3 orthopedic surgeons acknowledge evidence of disparities



Health literacy

1/3 of adults in the U.S. have low health literacy

Sources: ¹Lam O, Broderick B, Toor S. 2018. How far Americans live from the closest hospital differs by community type. Pew Research Center 2018. ²Bhavsar NA et al. Prevalence and predictors of no-shows to physical therapy for musculoskeletal conditions. PLOS ONE. 2021. ³Dahlhammer JM, Connor EM, Bose J, Lucas JW, Zelaya CE. Prescription opioid use among adults with chronic pain: United States, 2018. National Health Statistics Reports; no 162. Hyattsville, MD: National Center for Health Statistics. 2021. ⁴Adelani MA, O'Connor ML. Perspectives of orthopedic surgeons on racial/ethnic disparities in care. J Racial Ethn Health Disparities. 2017. ⁵Zenk, S. N. et al. Neighborhood racial composition, neighborhood poverty, and the spatial accessibility of supermarkets in metropolitan Detroit. American journal of public health, 2005.

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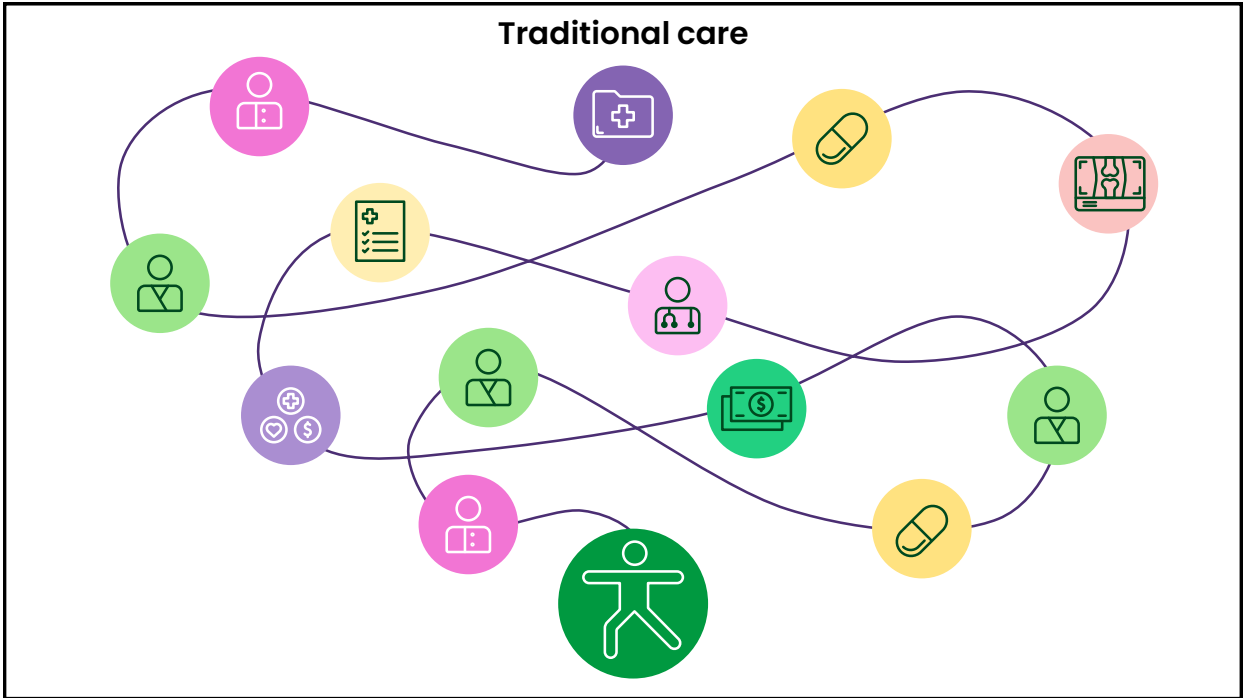
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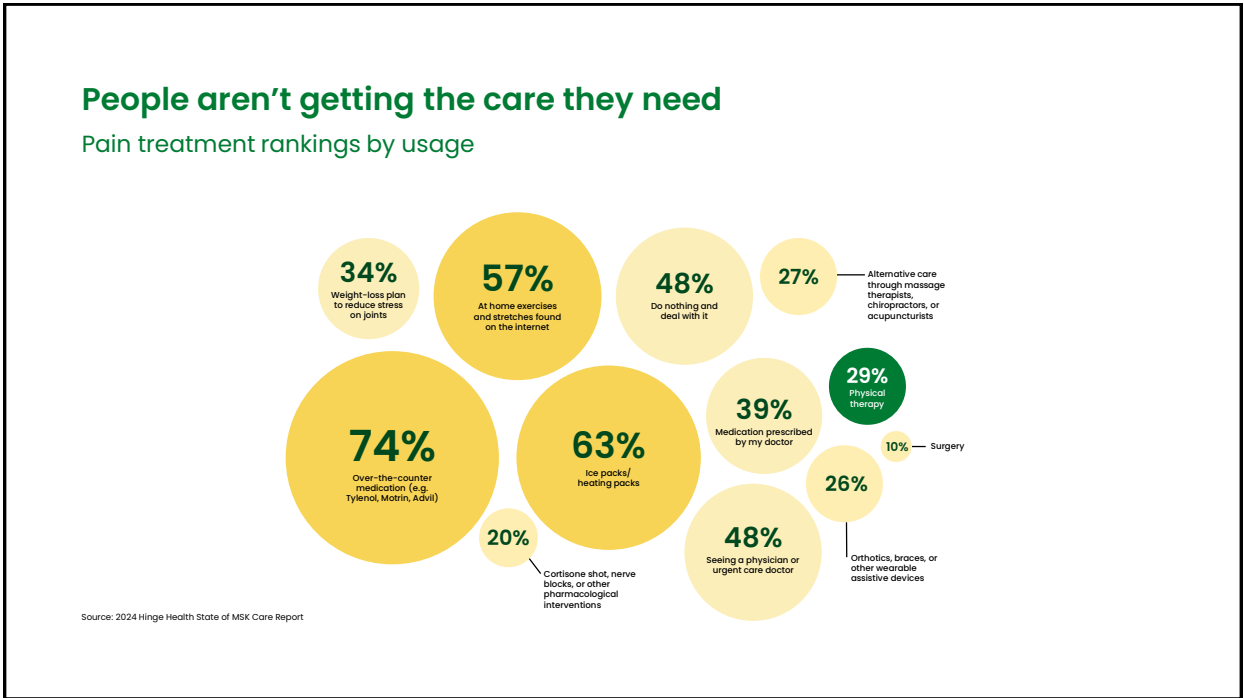
A person-centered approach to pain

Builds resilience, reduces financial burdens, and promotes long-term well-being

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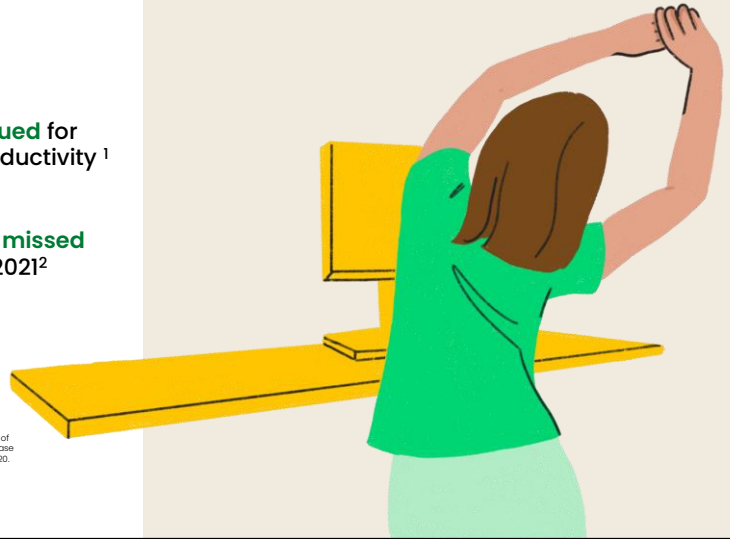
Pain is a massive cost for employers



\$560B–\$635B in costs accrued for MSK treatment and lost productivity¹



People living with MSK pain missed an average of 10.3 days in 2021²



Sources: 2024 Hinge Health State of MSK Care Report; 1 Gaskin DJ, Richard P. The economic costs of pain in the United States. *J Pain*. 2012;13(6):715–724. doi:10.1016/j.jpain.2012.03.009; 2 Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey, 2020.

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Patient-centered care

- ✔ Meets the complex needs of more people in pain
- ✔ Improves outcomes and reduces costs



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A decade of movement as medicine



1M+

Members treated



59M

Activity sessions



68%

Avg pain reduction per participant after 12 weeks¹



58%

Avg pain reduction in anxiety, depression after 12 weeks¹



42%

Fewer participants starting opioids²



52%

Of musculoskeletal surgeries avoided³

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Strategies to move beyond pain

Manage chronic pain and restore function

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Tips for managing chronic pain

Here are a few things that can help control symptoms and improve your chronic pain condition



Physical Activity

Exercise therapy
Mobility and flexibility
Functional Activities



Lifestyle Changes

Managing stress
Adequate sleep
Education on triggers



Healthy Diet

Anti-inflammatory Diet
Hydration

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Exercise therapy as a keystone habit

Action

- Tailored exercise therapy program

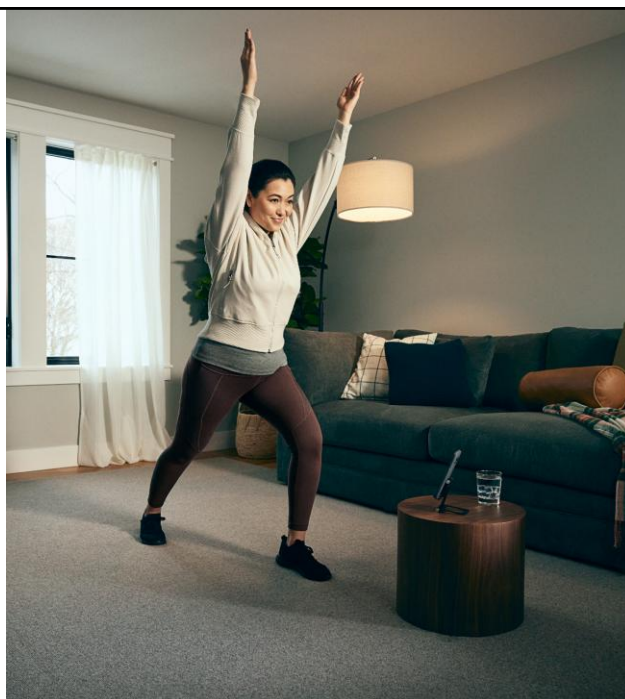
Anticipated results

- Retrain your response to pain
- Prevent injury and improve long-term pain
- Increased flexibility, strength and range of motion

AND

- Reduced stress and anxiety
- Increased ease of activities you love

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Stretch Break #2



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Woodpecker



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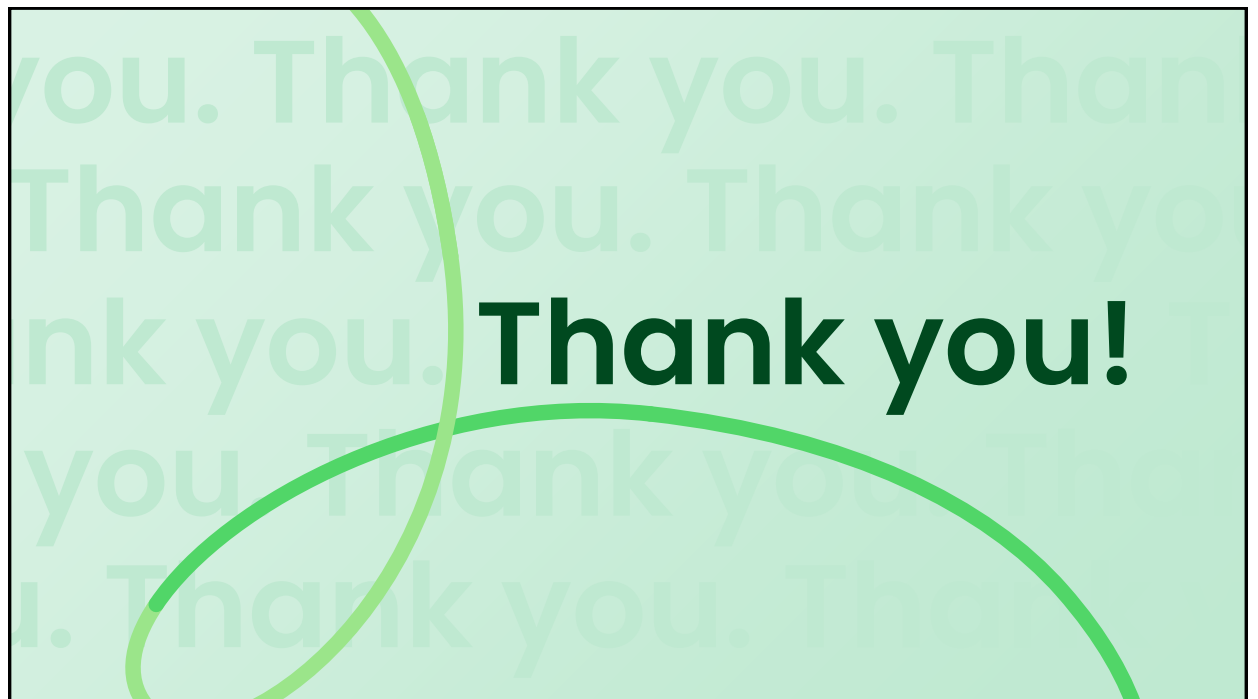
Mini squat



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