

# Precision **RELIEF**

GUIDE

5 WAYS TO IMMEDIATELY  
**STOP KNEE PAIN**

# CONTENTS

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## INTRODUCTION

This comprehensive guide compiles all the essential information, advice, and evidence-based strategies, structured to educate and empower readers to manage their knee pain effectively and explore innovative, non-invasive treatment options.

## CHAPTER 1: THE SCIENCE OF KNEE PAIN

Discover the causes of knee pain, focusing on osteoarthritis and the role of neovasculation. Learn how chronic osteoarthritis leads to the formation of excessive blood vessels, contributing to inflammation and pain, and how Precision Relief Mapping addresses this root cause.

## CHAPTER 2: IMMEDIATE RELIEF STRATEGIES

Explore practical, immediate relief strategies for managing knee pain:

ICE Protocol: The benefits of Ice, Compression, and Elevation, including step-by-step instructions for each technique.

Dietary Adjustments: Evidence-based foods and nutrients that combat knee inflammation, complete with simple dietary changes you can make today.

Exercise for Knee Health: A selection of the top 5 exercises recommended for improving knee function, designed to strengthen and stabilize your knee joint.



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## **CHAPTER 3: TOPICAL PAIN RELIEF**

Topical Analgesics: An overview of the safest and most effective OTC topical analgesics for knee pain, with a reminder to consult your physician before use.

## **CHAPTER 4: PRECISION RELIEF MAPPING**

"Beyond the Surface: Cutting-Edge Pain Relief Without the Cut"  
An in-depth look at the efficacy of Precision Relief Mapping and GAE (genicular artery embolization).

## **CHAPTER 5: CONCLUSION**

You'll be equipped with valuable information and practical strategies to manage your knee pain.

## **CHAPTER 6: REFERENCES**

A list of references, definitions, and legal disclaimer



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# Introduction

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Welcome to the Precision Relief Guide, your comprehensive resource for understanding and managing knee pain. We believe in empowering our patients with knowledge and innovative treatments to lead a pain-free life. This guide is crafted with our expertise and commitment to providing you with the most effective, non-invasive solutions for knee pain relief.

As you delve into the following pages, prepare to embark on an enlightening journey through the latest advancements in knee pain management. You'll discover groundbreaking techniques, such as our signature Precision Relief Mapping, alongside practical lifestyle adjustments and nutritional insights tailored to enhance your well-being. Each section is designed not only to inform but also to inspire action and hope, illuminating a path to recovery that aligns with your life's pace and preferences. Get ready to unlock the secrets to a more active, joyful life beyond knee pain.

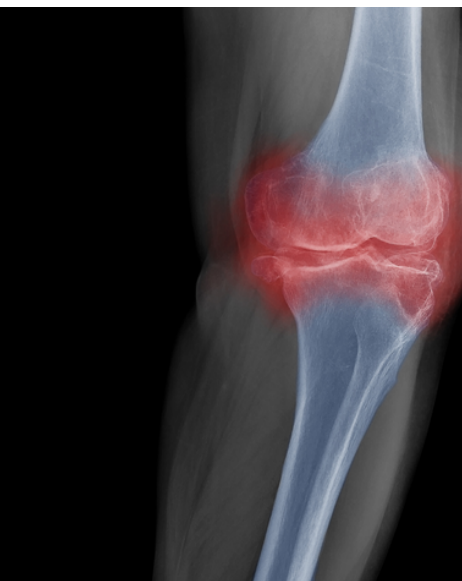




# Understanding Knee pain

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As knee osteoarthritis progresses, the wear and tear on your joint tissues signal your body to repair the damage. Part of this repair process involves creating new blood vessels to bring more nutrients to the affected area.



However, this well-intentioned response can go overboard, leading to an overgrowth of blood vessels around the knee. While this might sound beneficial, it actually leads to increased inflammation and pain, making everyday activities challenging. Next, we'll discuss relief strategies to combat this inflammation.

Precision Relief Mapping, a cutting-edge approach involving advanced mapping of your knee, offers a targeted solution for knee osteoarthritis by addressing the root cause of pain: excessive blood vessels, also known as neovasculation.

**We will explore this more, but first, here are some relief strategies so you can get started today!**

# Relief Strategies

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**ICE PROTOCOL:** The best evidence available today suggests that the ICE (Ice, Compression, Elevation) protocol is effective for managing acute knee injuries and reducing symptoms of chronic knee conditions like osteoarthritis. Here's a summary of the current best practices based on evidence:

- Ice: Applying cold therapy for 15-20 minutes at a time can help reduce inflammation and numb the surrounding area, providing pain relief. It's recommended to ice the knee 3-4 times a day, especially after activities that exacerbate knee pain. To protect the skin, ice should be wrapped in a cloth and not applied directly.
- Compression: Using an elastic bandage or a knee sleeve can provide support and reduce swelling. The compression should be snug but not tight enough to cut off circulation. It's important to monitor the area for any signs of decreased circulation or increased pain, which could indicate that the compression is too tight.
- Elevation: Elevating the knee above heart level, especially during the first 48 hours after an acute injury or after activities that aggravate chronic conditions, can help reduce swelling. Using pillows to prop up the leg can be an effective way to maintain elevation while sitting or lying down.



# Relief Strategies

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**Diets Potential Impact:** The best available evidence suggests that certain foods and nutrients can play a significant role in reducing inflammation, particularly in the knee and other joints. Here's a summary based on current research:



- **Omega-3 Fatty Acids:** According to a study in the Journal of Nutrition, omega-3 fatty acids, specifically EPA and DHA, significantly reduce inflammation in patients with knee osteoarthritis. This research highlights the benefits of consuming omega-3-rich foods like salmon, flaxseeds, and walnuts for managing joint pain. (1)

**Antioxidant-Rich Foods:** According to findings published in the American Journal of Clinical Nutrition, berries, leafy greens, and other fruits and vegetables high in antioxidants can help combat inflammation. The antioxidants, such as vitamins C and E, flavonoids, and polyphenols, protect the body from free radicals that can lead to increased inflammation. This study underscores the importance of antioxidants in mitigating inflammatory processes. (2)



# Relief Strategies

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**Curcumin (Turmeric):** According to a systematic review in the Journal of Medicinal Food, curcumin, turmeric's active compound, has been shown to significantly reduce arthritis symptoms, highlighting its anti-inflammatory properties. This review suggests curcumin as a potential agent to assist in the management arthritis. (3)

**Ginger:** According to research in Arthritis and Rheumatism, gingerol, found in ginger, exhibits potent anti-inflammatory and analgesic effects, potentially making ginger extract an effective natural remedy, which may help with knee pain relief in osteoarthritis patients. (4)



**Whole Grains:** According to a study in the American Journal of Clinical Nutrition, consuming whole grains instead of refined grains may lead to lower levels of C-reactive protein (CRP), an inflammation marker, in patients with chronic knee conditions. This research supports the role of whole grains in reducing inflammation. (5)

# Relief Strategies

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**Exercise for Knee Health:** The Journal of Orthopedic and Sports Physical Therapy (JOSPT) provides evidence-based recommendations for managing knee osteoarthritis, including exercises aimed at improving knee function. While specific exercises can vary based on individual needs and the latest research, the following are commonly recommended for their effectiveness:



**Quadriceps Strengthening:** Exercises that focus on strengthening the quadriceps muscles can help support and stabilize the knee joint. A simple yet effective exercise is the seated straight-leg raise, where one sits on a chair and slowly lifts the straightened leg parallel to the ground, holds it briefly, and then lowers it.



**Hamstring Curls:** Strengthening the hamstring muscles at the back of the thigh can also support knee health. Hamstring curls can be performed lying face down and slowly bending the knee to bring the heel towards the buttock, then gently lowering it back down.

# Relief Strategies

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**Step-Ups:** This exercise involves stepping up onto a low bench or step with one foot, followed by the other, and then stepping back down. It helps improve strength and stability in the legs and knees.



**Leg Presses:** Using a leg press machine at a gym or resistance bands at home, this exercise strengthens multiple leg muscles by pushing against resistance with the feet. It's important to keep the knees aligned and avoid extending them past the toes to prevent strain.



**Knee Extensions:** Performed either with a resistance band or on a leg extension machine, this exercise involves extending the leg to straighten the knee against resistance, then slowly returning to the starting position. It's crucial to perform this exercise gently to avoid putting excessive pressure on the knee.



# Topical Pain Relief

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**Surface Solutions:** topical treatments for temporary relief

**Topical Analgesics:** The most effective and safest over-the-counter (OTC) topical analgesics typically contain ingredients such as NSAIDs (non-steroidal anti-inflammatory drugs), capsaicin, menthol, or lidocaine. These ingredients work by reducing inflammation, blocking pain signals, or creating a cooling/warming sensation that can distract from the pain. Here's a brief overview:

- NSAIDs: Gels or creams containing ibuprofen or diclofenac (e.g., Voltaren) can reduce inflammation directly at the knee site, providing targeted relief for mild to moderate pain.
- Capsaicin: Derived from chili peppers, capsaicin creams and patches (e.g., Capzasin) work by depleting substance P, a pain-transmitting chemical, from nerve receptors. It may cause a burning sensation initially but can be effective for chronic pain relief over time.
- Menthol: Products containing menthol (e.g., Biofreeze) create a cooling sensation that can temporarily relieve pain by distracting the nerves with a different sensation.
- Lidocaine: Lidocaine patches or gels (e.g., Aspercreme with Lidocaine) numb the area, providing temporary relief from pain by blocking nerve signals.



# Non-Surgical Treatment



## Cutting-Edge Pain Relief Without the **Cut**

A brief review of the cause of knee pain will quickly reveal how to treat it at the source. Remember, here's how it works: As knee osteoarthritis progresses, the wear and tear on your joint tissues signal your body to repair the damage. Part of this repair process involves creating new blood vessels to bring more nutrients to the affected area.

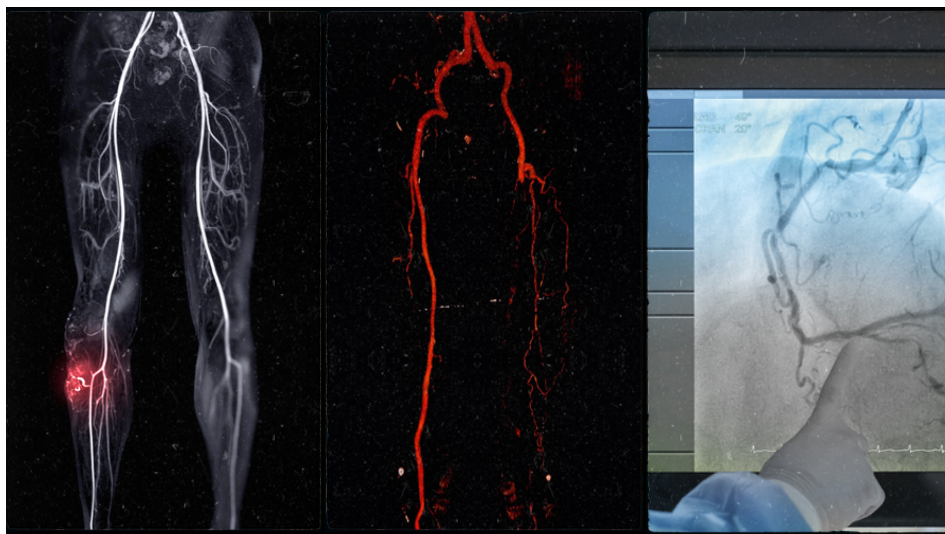
The problem is, this well-intentioned response can go overboard, leading to an overgrowth of blood vessels around the knee. While this might sound beneficial, it actually leads to increased inflammation and pain! If only there was a way to STOP the pain at it's source!

### INTRODUCING PRECISION RELIEF MAPPING



# Precision Relief Mapping

**Precision Relief Mapping** uses advanced imaging techniques to create a detailed "map" of the blood flow around your knee, pinpointing exactly where these problematic vessels are. Then, through a gentle and minimally invasive procedure called embolization, we specifically target and block these excess vessels, significantly reducing inflammation and easing your pain.



This personalized treatment not only alleviates your current discomfort but also helps prevent further joint damage by addressing one of the key factors contributing to the cycle of osteoarthritis pain. It's a precise, effective approach designed to get you back to your daily activities without the worry of knee pain holding you back.

# Precision Relief Mapping

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Recent studies and clinical trials have reported the following findings on the effectiveness and safety of the procedure.



- **Pain Reduction:** Patients undergoing this procedure have reported significant reductions in knee pain. A landmark study by Bagla et al. (2021) in the Journal of Vascular and Interventional Radiology revealed that patients undergoing this procedure experienced notable pain reduction and disability improvement compared to a sham group. (6)
- **Lasting Relief:** The study by Okuno et al. (2020) suggests that the pain relief experienced post-GAE can last for several months, offering a long-term solution for individuals suffering from chronic knee pain. (7)
- **Improved Mobility and Quality of Life:** Alongside pain reduction, improvements in mobility and overall quality of life have been observed. Little et al. (2021) reported potential efficacy in early follow-up, indicating improvements in mobility for patients with osteoarthritis of the knee post-procedure. (8)
- **Safety Profile:** This procedure has been shown to have a favorable safety profile, with a low incidence of complications. The systematic review and qualitative analysis conducted by Casadaban et al. (2020) highlight GAE's safety for treating osteoarthritis-related knee pain. This comprehensive review underscores the minimal adverse events associated with the procedure, affirming its favorable safety profile for patients seeking non-surgical pain relief options. (9)

# Conclusion

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You're now equipped with valuable information and practical strategies to manage your knee pain. But this is just the beginning. We're here to guide you further on your journey to a pain-free life.

- ✓ Avoid the anxiety and complications of major surgery
- ✓ Bypass the medication side-effects
- ✓ Stop the sleepless nights
- ✓ Eliminate the pain

✓ **Don't let knee pain hold you back!**



CALL or TEXT now to chat with our experts and explore how Precision Relief Mapping can transform your life.

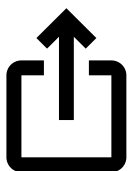
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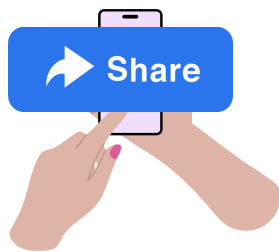
# Share and Enrich

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Thank you for diving into our guide. A number of people have asked if it's ok to share this guide with friends.

If you know someone who would benefit from this guide, simply click on the share button on your phone and feel free to send it along. We'd be happy to follow up with any of them. We know you value your relationships and so do we.



If your friends are experiencing a problem we've helped you solve, we'd love to help them to. If there's anything else we can do, please let us know.

P.S. Your share might just be the breakthrough someone close to you is waiting for. Let's make that difference together.





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## Definition(s):

Precision Relief Mapping is a proprietary framework describing the process of a diagnostic angiogram and targeted intervention, such as an embolization procedure.



# Legal Disclaimer

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This "Precision Relief Guide" ("the Guide") is provided for general informational and educational purposes only. The information contained within the Guide, including but not limited to text, graphics, images, and other material, is not intended as a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical condition. Never disregard professional medical advice or delay in seeking it because of something you have read in this Guide.

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## No Major Incision, Just Precision



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