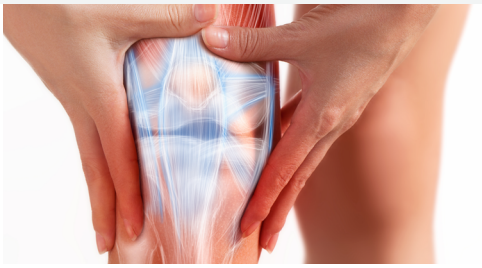

Pain and Inflammation Support Protocol*

Clinical Protocol to Support a Healthy Inflammatory Response and Healthy Responses to Pain*

The Pathophysiology of Inflammatory Disorders and Pain

Inflammation is a necessary and important physiological response. As components of the innate immune system, inflammatory mediators and immune cells help protect against infection and potential damage to cells and tissues. In healthy patients, this inflammation may resolve, but if it is not remedied, acute inflammation can cause pain and discomfort in the near term that may transition into a low-grade inflammatory state with long-term consequences.[1]

Acute phase reactants can be used as biomarkers to provide an in-time assessment of acute inflammatory status in patients. Based on these data points, clinicians can apply intensive clinical interventions to help expedite inflammation resolution and avoid prolonged damage or a trend toward chronic, steady-state inflammation.[2,3]

Chronic inflammation refers to an ongoing, long-term response to endogenous or exogenous stimuli characterized by the continued accumulation of macrophages, lymphocytes, cytokines, and cellular debris. Chronic inflammation is considered a physiological driver in many chronic conditions, including age-related conditions. Unhealthy and prolonged inflammatory responses may trigger nociceptors, resulting in unhealthy pain responses across a host of tissues, and may lead to cell/tissue injury and damage.[4]

This clinical protocol is designed to support healthy inflammatory responses and a healthy response to pain through lifestyle techniques, diet, and specific nutrients.*

Diagnostic Biomarkers and Clinical Indicators in Inflammation (Acute/Chronic)

- Hs-CRP[5]
  - Low risk: less than 1.0 mg/L
  - Average risk: 1.0 to 3.0 mg/L
  - High risk: above 3.0 mg/L
- Homocysteine[6]
  - 4 to 15 µml/L
- Uric acid[7]
  - < 5.5 mg/dL
- Neutrophil/Lymphocyte ratio[8,9]
  - 0.37 to 2.87 (female)
  - 0.43 to 2.75 (male)
- Erythrocyte sedimentation rate (ESR)[10]
  - 0 to 20 mm/hr (female)
  - 0 to 15 mm/hr (male)
- Ferritin[11]
  - 20 to 200 ng/mL (male)
  - 10 to 200 ng/mL (female)
- Serum amyloid A (A-SAA)[12,13]
  - 20 to 50 mcg/mL
- RBC fatty acid profile[14]
  - EPA, DHA, AA/EPA ratio

Therapeutic Diet and Nutritional Considerations

- Recommend a whole-foods, anti-inflammatory, or Mediterranean diet rich omega-3 fatty acids, anti-inflammatory herbs, spices, vegetables, and fruits. Choose grass-fed meats and dairy over corn-fed ones due to a higher EPA/AA ratio. Diets high in polyphenols, fiber, and antioxidants are related to lower levels of inflammation and oxidative stress in adults[15]
- Recommend consumption of cultured vegetables and fermented foods, and the avoidance of hydrogenated oils
- Advise patients to reduce refined carbohydrate and sugar intake, as they may predispose patients to weight gain and exacerbate systemic inflammation, and place an excess burden on inflamed joints[16–18]

Lifestyle Interventions

- Recommend gentle movement such as stretching, yoga, mobility exercises, and physical therapy
- Physical therapy, spinal manipulation therapy (e.g., chiropractic care), acupuncture therapy, massage therapy, and meditative movement therapies (e.g., Tai chi) may promote healthy pain responses during acute pain situations[19–21]
- Encourage proper sleep hygiene. Disrupted sleep may stimulate the production of pro-inflammatory cytokines[22]
- Guide patients to practice stress management techniques; biopsychosocial stressors induce chronic central and peripheral nervous system inflammation through the HPA axis[23]

††Ipsos 2023 survey among 160 U.S. functional medicine practitioners who are aware of Designs for Health and recommend supplements. Among these practitioners, in an average month, Designs for Health is their most recommended and personally trusted practitioner supplement brand, meaning a brand that is sold by health-care practitioners, in their office. (For sample definition, go to https://www.designsforhealth.com)

Supplement Protocol

Primary Support:

SPM Supreme™

Dose	1 to 2 softgels per day
Duration	8 to 12 weeks; retest inflammatory markers

Formula Highlights

SPM Supreme™ is uniquely formulated to support the body's normal healing process and pain response, helping to promote a quicker return to everyday activities.* It offers a synergistic blend of three specialized pro-resolving mediators (SPMs) and 360 mg per serving of omega-3 fatty acids (EPA and DHA) to support normal inflammatory responses and tissue repair.* SPMs are compounds naturally produced by the body, which help to support the body's ability to respond to physical challenges or infections and resolve the initial steps in the inflammatory process.*

Inflammatone™

Dose	2 capsules per day in between meals
Duration	8 to 12 weeks; retest inflammatory markers

Formula Highlights

Inflammatone™ is a combination of herbs, nutrients, and proteolytic enzymes for modulating the inflammatory response, supporting the natural clearance of proteins like kinin and fibrin, and supporting healthy lymphatic drainage.* The ingredients in Inflammatone™ provide natural support for a healthy inflammatory response and help protect against oxidative stress.* This product may help maintain healthy joints and support the body's normal repair process.*

Curcum-Evail® 400

Dose	1 softgel per day with a meal
Duration	8 to 12 weeks; retest inflammatory markers

Formula Highlights

Curcum-Evail® is a highly bioavailable curcuminoid formulation containing three bioactive, extensively researched curcuminoids. Curcumin supports healthy metabolism, cellular function, and healthy cardiovascular and neurological functions.* It also supports a healthy response to oxidative stress and a normal inflammatory response within the body.* Designs for Health's proprietary Evail™ emulsification technology uses a quillaja extract, along with delta- and gamma-tocotrienols and medium-chain triglycerides (MCTs) to support absorption and bioavailability.

Optional Support:

Consider one of the following formulas based on individual omega-3 fatty acid blood tests.

OmegAvail™ Hi-Po, OmegAvail™ Hi-Po Liquid, or OmegAvail™ TG1000

Dose	For OmegAvail™ Hi-Po, take 2 softgels or 1 tsp liquid per day with a meal. For OmegAvail™ TG1000, take 1 softgel per day with a meal
Duration	8 to 12 weeks; retest omega-3 fatty acids

Formula Highlights

OmegAvail™ Hi-Po and OmegAvail™ Hi-Po Liquid are omega-3 fatty acid formulas, providing 1,600 mg of EPA+DHA per 2 softgels or 3,000 mg of EPA+DHA per 1 teaspoon liquid serving in a 1:1 ratio. These products are optimal for supporting the foundational needs of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) for long-term supplementation.* Each softgel of OmegAvail™ TG1000 contains 662 mg of EPA and 250 mg of DHA, along with other omega-3 fatty acids from a fish oil concentrate.

For a list of references cited in this document, please visit:
https://www.designsforhealth.com/api/library-assets/literature-reference---pain-and-inflammation-protocol-references

Dosing recommendations are given for typical use based on an average 150-pound healthy adult. Health-care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies.* St. Louis, MO: Mosby-Elsevier; 2008.

***These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.**