Dietary Influences on Arthritis Inflammation

Both whole diet modifications and specific supplements can reduce arthritis symptoms and inflammation, as measured through decreased disease activity scores, improved joint function, and lower inflammatory markers.

Abstract

Dietary modifications and supplements show measurable benefits on arthritis symptoms and inflammation. In rheumatoid arthritis, a Mediterranean diet yielded a Disease Activity Score 28 (DAS28) reduction of 0.56 ($p < 0.001$), while a vegan/vegetarian regimen produced a DAS28 decrease of 2.0 ($p < 0.001$) and reduced swollen joint count by 3.7 ($p = 0.03$). An anti-inflammatory diet and a meat-, gluten-, and lactose-free (privative) diet have also been linked to reduced pain and improved quality of life, although one anti-inflammatory approach did not achieve a statistically significant DAS28 change ($p = 0.116$).

Dietary supplements have similarly supported clinical improvements. Omega-3 fatty acids, administered at daily doses of approximately 2.0–2.7 g eicosapentaenoic acid and 1.3–1.8 g docosahexaenoic acid, were associated with a tender joint count decrease of 5.3 ± 0.835 ($p < 0.0001$) and improvements in joint swelling and morning stiffness. In osteoarthritis, ginger (with a standardized mean difference for pain reduction of –3.76) and curcumin (1000 mg/day) have been linked to reduced pain and better joint function, and interventions such as strawberry powder have been tied to lower inflammatory markers. Several studies also reported significant decreases in biochemical markers—including C-reactive protein, interleukin-6, and tumor necrosis factor-alpha—with various diet and supplement protocols.

Collectively, the papers indicate that selected whole diets and food supplements can lessen arthritis disease activity and reduce inflammation through both clinical and biochemical improvements.

Paper search

Using your research question "how do food and diet supplements impact arthritis and inflammation", we searched across over 126 million academic papers from the Semantic Scholar corpus. We retrieved the 500 papers most relevant to the query.

Screening

We screened in papers that met these criteria:

- **Adult Population**: Does the study include only adult participants (18 years) with diagnosed arthritis?
- **Intervention Type**: Does the study examine dietary supplements, functional foods, or specific dietary interventions?
- **Study Design**: Is the study a randomized controlled trial (RCT), systematic review, or meta-analysis?
- **Outcome Measures**: Does the study measure at least one of the following: inflammatory markers, pain scores, joint function measures, or quality of life metrics?
- **Study Duration**: Was the intervention studied for 4 or more weeks?
- **Intervention Focus**: Does the study include dietary components as a primary or significant component of the intervention (rather than focusing solely on medications, surgery, or physical therapy)?
- **Study Method**: Is the study design more robust than a case report or case series?

We considered all screening questions together and made a holistic judgement about whether to screen in each paper.

Data extraction

We asked a large language model to extract each data column below from each paper. We gave the model the extraction instructions shown below for each column.

- **Study Design**:

  Identify the type of study design used. Specify whether it is:

- Randomized controlled trial
- Observational study (cohort, case-control, cross-sectional)
- Systematic review
- Meta-analysis
- Intervention study

If multiple study designs are present, list all. If unclear, note "study design not clearly specified" and provide any available details about the research methodology.

- **Participant Characteristics**:

  Extract the following participant details:

- Total number of participants
- Age range or mean age
- Gender distribution
- Specific arthritis type (e.g., rheumatoid arthritis, osteoarthritis)
- Disease severity or stage
- Inclusion and exclusion criteria

If any of these details are missing, note "not reported" for that specific characteristic. If ranges or multiple groups are reported, include all relevant information.

- **Dietary Interventions/Supplements**:

  List all specific:

- Food supplements used
- Dietary interventions
- Specific nutrients or compounds examined (e.g., omega-3, vitamin D, probiotics)

For each intervention, extract:

- Specific type/name
- Dosage
- Duration of intervention
- Frequency of consumption

If multiple interventions are studied, list all. If dosage or duration is not precisely specified, note the closest available description.

- **Outcome Measures**:

  Identify and extract:

- Primary outcome measures related to arthritis and inflammation
- Specific inflammatory markers measured
- Methods of measuring inflammation or arthritis symptoms
- Statistical measures used to assess intervention effects

Include units of measurement if provided. If multiple outcomes were measured, list all primary outcomes. If statistical significance is reported, include those details.

- **Key Findings**:

  Extract the main results of the study, specifically focusing on:

- Impact of dietary interventions on arthritis symptoms
- Changes in inflammatory markers
- Statistically significant findings
- Any noted improvements or limitations

Prioritize quantitative results if available. If results are primarily qualitative, summarize the key conclusions. Include effect sizes or statistical significance if reported.

Report

Due to the limitations of the AI model, we are only able to process 40 papers while writing a report. This report was written using the 40 papers that had the highest screening scores out of the 44 papers that we screened in and extracted data from.

Results

Characteristics of Included Studies

Study	Study Design	Intervention Type	Population	Duration	Full text retrieved
"ADIRA (Anti-inflammatory diet in rheumatoid arthritis)," 2020	Randomized controlled trial	Anti-inflammatory diet	80 Rheumatoid Arthritis (RA) patients with moderate disease activity	10 weeks per diet phase	No
Abdel-Aal et al., 2024	Randomized controlled trial	Mediterranean diet	60 females with RA	6 months	No
Bae et al., 2009	Randomized controlled trial	Quercetin + Vitamin C, -Lipoic Acid	20 RA patients	4 weeks	No

Study	Study Design	Intervention Type	Population	Duration	Full text retrieved
Banolas et al., 2023	Systematic review	Various diets (Mediterranean, vegan, lactovegetarian, raw, fasting, ketogenic)	Adults with RA and fibromyalgia	Not specified in abstract	No
Barnard et al., 2022	Randomized controlled trial, Intervention study	Vegan diet, elimination diet	44 RA patients	16 weeks	No
Bostan et al., 2024	Systematic review	Various diets (Mediterranean, low-fat high-carbohydrate, anti-inflammatory, vegan)	Adults with RA	Not specified in abstract	No
Davison et al., 2015	Randomized controlled trial, Intervention study	Mediterranean type diet	45 Osteoarthritis (OA) patients	4 months	No
Genel et al., 2020	Systematic review, Meta-analysis, Randomized controlled trial, Prospective observational study	Various diets and supplements	468 RA and OA patients, aged 30-90 years	3-6 months	Yes
Guagnano et al., 2021	Randomized controlled trial	Privative diet (meat-, gluten-, and lactose-free)	40 RA patients	3 months	No
Hagen et al., 2009	Systematic review	Various diets and supplements	837 RA patients	Various durations	Yes
Hulander et al., 2021	Randomized controlled trial (crossover design), Intervention study	Anti-inflammatory diet	50 RA patients, median age 63 years, 78% female	10 weeks	Yes

Study	Study Design	Intervention Type	Population	Duration	Full text retrieved
Kremer et al., 1987	Intervention study (nonrandomized, double-blinded, placebo-controlled, crossover trial)	Fish oil supplementation	40 RA patients	14 weeks	No
Kremer et al., 1990	Randomized controlled trial, Intervention study	Fish oil and olive oil supplementation	49 RA patients	24 weeks	No
Kremer et al., 1995	Randomized controlled trial	Fish oil supplementation	66 RA patients	8 weeks	No
Law et al., 2024	Randomized controlled trial	Anti-inflammatory diet	144 knee OA patients, aged 45-85 years	12 weeks	Yes
Leite et al., 2020	Randomized controlled trial	Omega-3 supplementation, hypocaloric diet	97 Psoriatic Arthritis (PsA) patients	12 weeks	No
Leite et al., 2022	Randomized controlled trial, Intervention study	Omega-3 supplementation, hypocaloric diet	97 PsA patients, aged 18 years	12 weeks	Yes
Liu et al., 2017	Systematic review, Meta-analysis	Various dietary supplements	11,586 OA patients, mean age 48-69 years, 65% women	Various durations	Yes
Liu et al., 2020	Systematic review and Meta-analysis	Vitamin D and fatty acid supplementation	Adult RA patients	Not specified	Yes
Long et al., 2023	Systematic review, Meta-analysis, Randomized controlled trial	Various dietary polyphenols	3852 RA patients	Various durations	Yes
Mathieu et al., 2022	Systematic review, Meta-analysis, Randomized controlled trial	Various supplements (curcumin, ginger, vitamin D, omega-3)	4744 OA patients, mean age 59.5 years, 73.2% female	Various durations	Yes
Nelson et al., 2020	Systematic review	Various diets and supplements	Adult RA patients	Various durations	Yes

Study	Study Design	Intervention Type	Population	Duration	Full text retrieved
Nieman et al., 2013	Randomized controlled trial	InstaflexTM Joint Support supplement	100 adults with joint pain, aged 50-75 years	8 weeks	Yes
Philippou et al., 2019	Systematic review	Various diets and supplements	RA patients	Various durations	No
Philippou et al., 2020	Systematic review	Various diets and supplements	RA patients	Various durations	No
Raad et al., 2022	Randomized controlled trial	Mediterranean Diet	44 RA patients, mean age 47.5 years, 87.5% female	12 weeks	Yes
Ranjbar et al., 2024	Randomized controlled trial	Intermittent Fasting diet	44 over-weight/obese post-menopausal women with RA, aged 50-70 years	8 weeks	Yes
Sarzi-Puttini et al., "Diet therapy for rheumatoid arthritis"	Randomized controlled trial	Experimental diet (high unsaturated fats, low saturated fats, hypoallergenic foods)	50 RA patients	24 weeks	No
Sarzi-Puttini et al., 2000	Randomized controlled trial	Experimental diet (high unsaturated fats, low saturated fats, hypoallergenic foods)	50 RA patients	24 weeks	No
Schell et al., 2017	Randomized controlled trial	Strawberry supplementa-tion	17 obese adults with knee OA, mean age 57 years	12 weeks	No
Sharkey et al., 2021	Randomized controlled trial, Intervention study	Synogesic supplement	46 OA patients, mean age 62.6 years	12 weeks	Yes

Study	Study Design	Intervention Type	Population	Duration	Full text retrieved
Sköldstam et al., 2003	Randomized controlled trial; Intervention study	Mediterranean Diet	56 RA patients, aged 33-75 years	3 months	Yes
Sundrarjun et al., 2004a	Randomized controlled trial	Fish oil supplementation, low n-6 fatty acid diet	60 active RA patients	24 weeks	No
Sundrarjun et al., 2004b	Randomized controlled trial, Intervention study	Fish oil supplementation, low n-6 fatty acid diet	60 active RA patients	24 weeks	No
Turesson Wadell et al., 2021	Randomized controlled trial (crossover design), Intervention study	Anti-inflammatory diet	50 RA patients, median age 63 years, 77% women	10 weeks per diet period	Yes
Turk et al., 2023	Systematic review, Meta-analysis	Various diets and supplements	Adult RA patients	Various durations	No
Vadell et al., 2019	Randomized controlled trial (controlled cross-over trial)	Anti-inflammatory portfolio diet	50 RA patients	10 weeks	Yes
Vadell et al., 2020	Randomized controlled trial (RCT) with a crossover design; Intervention study	Anti-inflammatory portfolio diet	50 RA patients, aged 18-75 years, 77% female	Median 10 weeks	Yes
Van de Tempel et al., 1990	Randomized controlled trial, Intervention study	Fish oil supplementation	16 RA patients, mean age 53 years	12 weeks	Yes
Winkvist et al., 2018	Randomized controlled trial; Intervention study	Anti-inflammatory diet	50 RA patients, aged 18-70 years	10 weeks per diet period	Yes

Study Design

- 25 studies were randomized controlled trials (RCTs)
- 7 were systematic reviews
- 3 used mixed methods (including systematic reviews and RCTs)
- 1 was a non-RCT intervention study
- We didn't find a clear study design in the abstracts or available full texts for 4 studies

Intervention Type

- Anti-inflammatory diets were the most common intervention, used in 7 studies
- Mediterranean diets and fish oil supplementation were each used in 4 studies
- 6 studies examined various diets and supplements
- Other interventions included omega-3 supplementation, vegan diets, and hypocaloric diets

Population

- 31 studies focused on patients with Rheumatoid Arthritis (RA)
- 5 studies included patients with Osteoarthritis (OA)
- 2 studies examined patients with Psoriatic Arthritis (PsA)
- 1 study included both RA and OA patients
- 1 study focused on patients with both RA and fibromyalgia

Duration

- 10 studies lasted 10-12 weeks
- 5 studies had a duration of 3-4 months
- 3 studies lasted 6 months or longer
- 5 studies had a duration of less than 10 weeks
- 3 studies reported various durations
- We didn't find duration information in the abstracts or available full texts for 14 studies

Effects of Dietary Interventions

Whole Diet Approaches

Intervention	Primary Outcomes	Effect Size	Quality of Evidence
Mediterranean Diet	Improved disease activity (Disease Activity Score 28 (DAS28)), pain, and function in Rheumatoid Arthritis (RA)	DAS28 decrease: 0.56 ($p<0.001$)	Moderate
Anti-inflammatory Diet	Reduced disease activity and inflammatory markers in RA	DAS28-ESR decrease: not significant ($p=0.116$)	Low to Moderate

Intervention	Primary Outcomes	Effect Size	Quality of Evidence
Vegan/Vegetarian Diet	Improved symptoms in RA	DAS28 decrease: 2.0 ($p<0.001$)	Low
Fasting/Calorie Restriction	Short-term reduction in inflammation	No mention found	Very Low
Privative Diet (meat-, gluten-, lactose-free)	Decreased pain and improved quality of life in RA	No mention found	Low

Analysis of Whole Diet Approaches

- Intervention Types : We found information on dietary interventions for rheumatoid arthritis (RA) in 5 studies.
- Reported Outcomes :
  - All 5 studies reported improved outcomes, including reduced disease activity, decreased pain, improved function, and reduced inflammation.
- Effect Sizes :
  - We found quantified effect sizes for 2 studies:
    - Mediterranean Diet: DAS28 decrease of 0.56 ($p<0.001$)
    - Vegan/Vegetarian Diet: DAS28 decrease of 2.0 ($p<0.001$)
  - We found a non-significant effect size for 1 study (Anti-inflammatory Diet)
  - We didn't find quantified effect sizes in the abstracts or available full texts for 2 studies
- Quality of Evidence :
  - We found that 1 study was reported as having moderate quality evidence
  - We found that 1 study was reported as having low to moderate quality evidence
  - We found that 2 studies were reported as having low quality evidence
  - We found that 1 study was reported as having very low quality evidence
- Key Insight : The Mediterranean Diet and Vegan/Vegetarian Diet showed the largest quantified improvements in disease activity (measured by DAS28), but the quality of evidence was moderate and low, respectively. This suggests a need for more rigorous studies to confirm these promising results.

Specific Food Components

Intervention	Primary Outcomes	Effect Size	Quality of Evidence
Omega-3 Fatty Acids	Reduced joint tenderness, morning stiffness, and Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) use in Rheumatoid Arthritis (RA)	Tender joint count decrease: 5.3 ± 0.835 ($p<0.0001$)	Moderate
Curcumin	Improved pain and function in Osteoarthritis (OA)	No mention found	Low to Moderate
Ginger	Reduced pain and inflammatory markers in OA	Pain reduction Standardized Mean Difference (SMD): -3.76	Low to Moderate
Strawberries	Decreased inflammatory markers and pain in OA	No mention found	Low
Probiotics (Lactobacillus Casei)	Reduced disease activity in RA	No mention found	Low

Analysis of Specific Food Components

- Intervention Types : We found information on dietary interventions for rheumatoid arthritis (RA) and osteoarthritis (OA):
  - 2 studies focused on RA, examining omega-3 fatty acids and probiotics
  - 3 studies focused on OA, examining curcumin, ginger, and strawberries
- Effect Sizes :
  - We found quantified effect sizes for 2/5 studies:
    - 1 study reported a statistically significant effect ($p<0.0001$) for omega-3 fatty acids in RA
    - 1 study reported an SMD of -3.76 for pain reduction with ginger in OA
  - We didn't find quantified effect sizes in the abstracts or available full texts for 3/5 studies
- Quality of Evidence :
  - We found that 1 intervention was reported as having moderate quality evidence (omega-3 fatty acids)
  - We found that 2 interventions were reported as having low to moderate quality evidence (curcumin and ginger)
  - We found that 2 interventions were reported as having low quality evidence (strawberries and probiotics)
- Key Insight : The evidence quality ranged from low to moderate across the studies, with most interventions showing some positive effects on symptoms or disease activity in RA or OA. Omega-3 fatty acids and ginger showed the most promising quantified results, but more high-quality studies are needed to confirm these findings.

Effects of Dietary Supplements

Omega-3 Fatty Acids

Study	Dosage	Clinical Outcomes	Safety Profile
Kremer et al., 1987	2.7 g Eicosapentaenoic Acid (EPA), 1.8 g Docosahexaenoic Acid (DHA) daily	Improved time to onset of fatigue, decreased tender joints	No significant adverse effects reported
Kremer et al., 1990	Low dose: 27 mg/kg EPA, 18 mg/kg DHA; High dose: 54 mg/kg EPA, 36 mg/kg DHA	Reduced tender and swollen joints, improved global arthritis activity	No mention found
Kremer et al., 1995	130 mg/kg/day omega-3 fatty acids	Reduced tender joints, morning stiffness, and global arthritis activity	Some patients able to discontinue Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) without flare
Van de Tempel et al., 1990	2.04 g EPA, 1.32 g DHA daily	Reduced joint swelling index and morning stiffness duration	No significant adverse effects reported

Analysis of Omega-3 Fatty Acids

- Dosage :
  - We found EPA and DHA dosages reported in 3/4 studies. EPA dosages ranged from 2.04g to 2.7g daily, or 27-54 mg/kg. DHA dosages ranged from 1.32g to 1.8g daily, or 18-36 mg/kg.
  - We found omega-3 fatty acid dosage reported in 1/4 studies at 130 mg/kg/day.
- Clinical Outcomes :
  - We found improved clinical outcomes reported in all 4 studies. These included reductions in tender joints, swollen joints, morning stiffness, and improvements in global arthritis activity.
- Safety Profile :
  - We found safety information for 3/4 studies.
  - We found no significant adverse effects reported in 2/4 studies.
  - We found 1/4 studies reporting that some patients were able to discontinue NSAIDs without flare.
  - We didn't find safety information in the abstract or available full text for 1 study.

Micronutrients and Antioxidants

Supplement Type	Dosage	Clinical Outcomes	Safety Profile
Vitamin D	2000-3000 IU/day	Mixed results, some improvements in pain and function	No mention found
Vitamin E	400-500 IU/day	No significant changes in Osteoarthritis (OA) parameters	No mention found
Quercetin + Vitamin C	166mg quercetin + 133mg vitamin C, 3 capsules/day	No significant differences in inflammatory markers or disease severity	No mention found
-Lipoic Acid	300mg, 3 capsules/day	No significant differences in inflammatory markers or disease severity	No mention found

Analysis of Micronutrients and Antioxidants

- Dosage :
  - We found specific IU/day dosages for 2 studies: one using 2000-3000 IU/day and another using 400-500 IU/day
  - We found other dosage formats for 2 studies, including one using a combination of quercetin and vitamin C, and another using -Lipoic Acid
- Clinical Outcomes :
  - We found mixed results for 1 study
  - We found no significant changes or differences in 3 studies
- Safety Profile :
  - We didn't find safety profile information in the abstracts or available full texts for any of the 4 studies

Other Supplements

Supplement Type	Dosage	Clinical Outcomes	Safety Profile
Curcumin	1000 mg/day	Improved pain and function in Osteoarthritis (OA)	No mention found
Ginger	250 mg/day	Reduced pain and inflammatory markers in OA	No mention found
InstaflexTM Joint Support	3 capsules/day	Reduced joint pain severity, improved function and stiffness	No adverse effects reported

Supplement Type	Dosage	Clinical Outcomes	Safety Profile
Synogesic	No mention found	Improved arthritis symptoms, reduced inflammatory markers	No mention found
Strawberry powder	50 g/day	Decreased inflammatory markers and pain in OA	No mention found

Analysis of Other Supplements

- Dosage :
  - We found dosage information for 4/5 supplements:
    - 1 supplement at 1000 mg/day
    - 1 supplement at 250 mg/day
    - 1 supplement at 3 capsules/day
    - 1 supplement at 50 g/day
  - We didn't find dosage information in the abstract or available full text for 1 supplement.
- Clinical Outcomes :
  - All 5 supplements showed positive clinical outcomes:
    - 3/5 reported reduced pain
    - 3/5 reported reduced inflammatory markers
    - 2/5 reported improved function
    - 1/5 reported improved stiffness
    - 1/5 reported improved arthritis symptoms
- Safety Profile :
  - We didn't find safety information in the abstracts or available full texts for 4/5 supplements
  - 1/5 supplements reported no adverse effects

Inflammatory Markers and Disease Activity

Changes in Clinical Measures

Study	Intervention	Disease Activity Score 28 (DAS28) Change	Tender Joint Count Change	Swollen Joint Count Change
Sköldstam et al., 2003	Mediterranean Diet	-0.56 ($p<0.001$)	No mention found	Significant decrease ($p=0.001$)
Vadell et al., 2020	Anti-inflammatory Diet	Not significant ($p=0.116$)	No mention found	No mention found
Barnard et al., 2022	Vegan Diet	-2.0 ($p<0.001$)	No mention found	-3.7 ($p=0.03$)
Kremer et al., 1995	Omega-3 Fatty Acids	No mention found	-5.3 ± 0.835 ($p<0.0001$)	No mention found

Study	Intervention	Disease Activity Score 28 (DAS28) Change	Tender Joint Count Change	Swollen Joint Count Change
Guagnano et al., 2021	Privative Diet	Significant decrease (p not reported)	No mention found	No mention found
Raad et al., 2022	Mediterranean Diet	No mention found	Significant improvement (p=0.007)	No mention found
Turesson Wadell et al., 2021	Anti-inflammatory Diet	Not significant	No mention found	No mention found
Turk et al., 2023	Various Diets and Supplements	-0.46 [-0.91, -0.02] (p=0.04)	Significant decrease (not quantified)	Significant decrease (not quantified)

Analysis of Changes in Clinical Measures

- Intervention Types :
  - 2 studies used Mediterranean Diet
  - 2 studies used Anti-inflammatory Diet
  - 1 study each used Vegan Diet, Omega-3 Fatty Acids, Privative Diet, and Various Diets and Supplements
- Disease Activity Score 28 (DAS28) Change :
  - We found significant decreases in 4 studies
  - We found no significant changes in 2 studies
  - We didn't find DAS28 Change information in the abstracts or available full texts for 2 studies
- Tender Joint Count :
  - We found significant decreases in 3 studies
  - We didn't find Tender Joint Count information in the abstracts or available full texts for 5 studies
- Swollen Joint Count :
  - We found significant decreases in 3 studies
  - We didn't find Swollen Joint Count information in the abstracts or available full texts for 5 studies
- Key Insight : The majority of studies that reported outcomes showed significant improvements in at least one measure of rheumatoid arthritis symptoms. However, the interventions and reported outcomes varied across studies, making direct comparisons challenging. The vegan diet showed the largest DAS28 decrease, but this was only reported in one study.

Biochemical Markers

Study	Intervention	C-Reactive Protein (CRP) Change	Erythrocyte Sedimentation Rate (ESR) Change	Other Inflammatory Markers
Hulander et al., 2021	Anti-inflammatory Diet	No significant change	Significant decrease in high-compliance group	Significant reductions in CXCL1, CXCL5, CXCL6, TNFSF14
Sköldstam et al., 2003	Mediterranean Diet	Significant decrease (p=0.006)	No mention found	No mention found
Schell et al., 2017	Strawberry Supplementation	No significant change	No mention found	Significant decreases in Interleukin-6 (IL-6), Interleukin-1 (IL-1), Matrix Metalloproteinase-3 (MMP-3)
Sundrarjun et al., 2004a	Fish Oil + Low n-6 Diet	Significant reduction at week 18	No mention found	Significant reductions in IL-6 and Tumor Necrosis Factor-alpha (TNF-) at week 24
Sundrarjun et al., 2004b	Fish Oil + Low n-6 Diet	Significant reduction at week 18	No mention found	Significant reductions in IL-6 and TNF- at week 24
Guagnano et al., 2021	Privative Diet	Significant decrease	No mention found	Significant decreases in circulating leukocytes and neutrophils
Mathieu et al., 2022	Ginger Supplementation	Significant decrease	Significant decrease	No mention found

Analysis of Biochemical Markers

- C-reactive protein (CRP) :
  - We found significant decreases in 5 studies
  - We found no significant changes in 2 studies
- Erythrocyte sedimentation rate (ESR) :
  - We found significant decreases in 2 studies
  - We didn't find ESR data in the abstracts or available full texts for 5 studies

- Other inflammatory markers :
  - We found significant decreases in 5 studies
  - We didn't find data on other inflammatory markers in the abstracts or available full texts for 2 studies
- Intervention Types : The interventions studied included anti-inflammatory diet, Mediterranean diet, strawberry supplementation, fish oil with low n-6 diet, privative diet, and ginger supplementation. Fish oil with low n-6 diet was examined in two studies, while the others were each investigated in one study.
- Key Insight : Most interventions showed some anti-inflammatory effects, with the majority of studies reporting decreases in at least one inflammatory marker. CRP was the most consistently reported marker, showing decreases in 5 out of 7 studies. This suggests that various dietary interventions may have potential in reducing inflammation associated with arthritis, but more research is needed to determine the most effective approaches.

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