

Abstract

# What Is the Efficacy of the Autoimmune Protocol (AIP) Diet in People with Rheumatoid Arthritis? A Mixed-Methods Pilot Intervention Study <sup>†</sup>

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**Abstract:** Rheumatoid arthritis (RA) is a systemic autoimmune disease characterised by inflammation of the synovial lining of joints, causing pain, swelling, and stiffness with potential for joint deformity. RA affects about 2.3% of New Zealanders and 2.8% of Māori. Despite pharmacological treatment, people with RA report unmet needs, experiencing unacceptable levels of pain, physical disability, fatigue, and suboptimal mental health. The autoimmune protocol or paleo diet (AIP), popularised in social media, is reportedly used by many with autoimmune disease to manage their symptoms. No clinical trials have tested its efficacy in RA. We report a two-phase design, 12 week intervention; a 4-week control, where participants with RA consumed their usual diet, followed by 8-weeks AIP diet. Participants needed to be on stable medication and supplements for >8 weeks, and an unrestricted diet for inclusion. Participants completed weekly validated questionnaires; RAID (RA Impact of Disease), and RAPID3 (Routine Assessment of Patient Index Data 3). Biometric measures and 3-day diet dairies were taken at baseline and weeks 4, 8 and 12. Post study, a 1-hour interview was conducted with each participant to explore their experience of using the AIP diet. Nine people (7 female, 2 male) completed the study. The mean RAPID3 showed a reduction from baseline to the end of week 12 from 2.53 (Range 0.67–5.33) to 0.99 (Range 0–2.5). Four participants reached a clinically meaningful reduction in RAPID3 of >1.2 and endpoint <2, while on AIP. Three domains that are meaningful for RA patients also improved: Fatigue, (mean baseline: 4.44 (0–10) to Week 12: 1.11 (0–4)); Sleep (mean baseline: 3.77 (0–10) to Week 12: 1.22 (0–2)). Pain: (mean baseline: 3.27 (0–4.5) to Week 12: 1.38 (0–3.5)). These results show that the AIP diet has potential as an adjunct therapy in RA, and further investigations are warranted.

**Keywords:** rheumatoid arthritis; diet; diet therapy; elimination diet



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