

Author Year Country Research Design PEDro Score Sample Size	Methods	Outcomes
Allison et al. 2018 Canada Secondary Analysis of a previous RCT(Alison et al. 2017) N=20	<p>Population: Mean age=48.7±14.0 yr; Gender: males=10, females=10; Time since injury=13.1±10.8 yr; Level of injury: C=12, T=6, L=2; Severity of injury: AIS A=7, B=2, C=3, D=8.</p> <p>Intervention: Participants were randomly assigned to a three-month control group or a three-month anti-inflammatory diet treatment group.</p> <p>Outcome Measures: Change in nutrient intake, and corresponding changes to various inflammatory mediators (C reactive protein (CRP), interleukin (IL-2, IL-6, IL-1β), tumor necrosis factor alpha (TNF-α), interferon gamma (IFN-γ), prostaglandin E2 (PGE2) and kynurenine/tryptophan ration (KYN/TRP).</p> <p>*NOTE: This was a statistical analysis of a previous randomized controlled trial (Alison et al. 2017).</p>	<ol style="list-style-type: none"> 1. No significant change in total energy intake from baseline to the end of the intervention (p=0.10). 2. Significant reduction in fat intake (p=0.02) and significant increase in protein intake (p=0.02), however carbohydrate intake was not significantly changed (p=0.23). 3. Well-established anti-inflammatory nutrients vitamin A, carotenoids, vitamin C, vitamin E, and omega-3 fatty acids all showed significant increases from baseline to intervention's end (p<0.01 for each). 4. Pro-inflammatory nutrients showed significant reductions from baseline to intervention's end including trans fatty acids (p=0.05), caffeine (p<0.01) and sodium (p=0.02). 5. No significant observable changes in total energy intake, macronutrient intake, or nutrients with anti-inflammatory or pro-inflammatory properties in the control group (p>0.05 for all). 6. Mann-Whitney test showed change scores from baseline – 3-months between treatments group and control group were significantly different for IFN-γ (p=0.01), IL-1β (p=0.01), and I-2 (p=0.01). 7. No other significant differences reported by the Mann-Whitney test for inflammatory mediators in the treatment or control groups. 8. Friedman test indicated that in the treatment group there was a statistically significant reduction in IFN-γ (p=0.01), IL-1β (p<0.01) and IL-6 (p<0.05). 9. No other significant changes reported by the Friedman test for the inflammatory mediators in the treatment or control group. 10. Wilcoxon signed-rank test reported significant reductions from baseline to 3 months in IFN-γ (p=0.01) and IL-1β (p<0.01) in the treatment group. 11. No other significant changes reported by the Wilcoxon signed-rank test in the treatment or control group. 12. Non-significant trends towards group X time interactions for TNF-α (p=0.10) and PGE2 (p=0.07) by two-way repeated measures ANOVA.

		<ol style="list-style-type: none"> 13. No trends observed for KYN/TRP by two-way measured ANOVA. 14. Change in total caloric intake and individual macronutrient intake was not significantly correlated with any inflammatory mediator. 15. Significant negative correlation observed between the change in vitamin A and the change in CRP (p=0.02), IL-1β (p=0.02), IFN-γ (p=0.04), and KYN/TRP (p<0.01). 16. Significant negative correlation observed between the change in carotenoids and the change in CRP (p<0.01), IL-1β (p<0.01), PGE2 (p=0.05) and KYN/TRP (p<0.01). 17. Significant negative correlation observed between the change in omega-3 and the change in IL-1β (p=0.03) and KYN/TRP (p=0.01). 18. Significant negative correlation observed between the change in zinc and the change in IL-2 (p=0.04), IL-6 (p=0.05), IL-1β (p<0.01), TNF-α (p=0.02), IFN-γ (p=0.03) and KYN/TRP (p<0.01). 19. Significant negative correlation observed between the change in vitamin C and the change in the KYN/TRP ratio (p=0.05) as well as the change in iron and the change in the KYN/TRP ratio (p<0.01). 20. Significant positive correlation observed between the change in iodine and the change in IL-2 (p=0.03), IL-6 (p=0.01) and IFN-γ (p=0.02).
<p>Allison et al. 2017 Canada RCT PEDro=7 N=20</p>	<p>Population: Mean age=47.8\pm13.8 yr; Gender: males=10, females=10; Time since injury=13.1\pm10.8 yr; Level of injury: C=12, T=6, L=2; Severity of injury: AIS A=7, B=2, C=3, D=8.</p> <p>Intervention: Participants were randomized into a control group, who ate foods they would normally eat and a treatment group, which eliminated inflammatory inducing foods from their diet and added anti-inflammatory foods. Nerve conduction was tested at baseline, 1 and 3 months.</p> <p>Outcome Measures: Inflammatory Mediators (pro-inflammatory cytokines (IL-2, IL-1β, IL-6, TNF-α and IFN-γ), acute phase protein (CRP), anti-inflammatory cytokines (IL-4, IL-10 and IL-1RA), and pro-inflammatory eicosanoid (PGE2), nerve conduction velocity (NCV), and M-wave amplitude.</p>	<ol style="list-style-type: none"> 1. Mann-Whitney test showed significant difference between treatment and control groups for IFN-γ (p=0.01), IL-1β (p=0.01) and IL-2 (p=0.01). 2. Friedman test showed a significant reduction over time for the treatment group in IFN-γ (p=0.01), IL-1β (p=0.01), and IL-6 (p<0.05). 3. Mann-Whitney and Friedman tests did not show any significant reductions for an inflammatory mediator in the control group (p>0.05). 4. Wilcoxon signed-rank test showed significant reduction over time for the treatment group in IFN-γ (p=0.01) and IL-1β (p<0.01). 5. Wilcoxon signed-rank test showed no significant reduction over time at 3 months from baseline in IL-6 (p=0.08) but did at 1 month (p=0.02). 6. No other significant changes in pro-inflammatory or anti-inflammatory cytokines (p>0.05). 7. No significant Group X Time interactions observed for motor NCV (p=0.77) or M-wave amplitude (p=0.61).
	<p>Effect Sizes: Forest plot of standardized mean differences (SMD \pm 95%C.I.) as calculated from pre- and post-intervention data.</p>	

Allison et al. 2017; Control vs. Anti-Inflammatory Diet

