Healthy fats improve nerve function in obese mice

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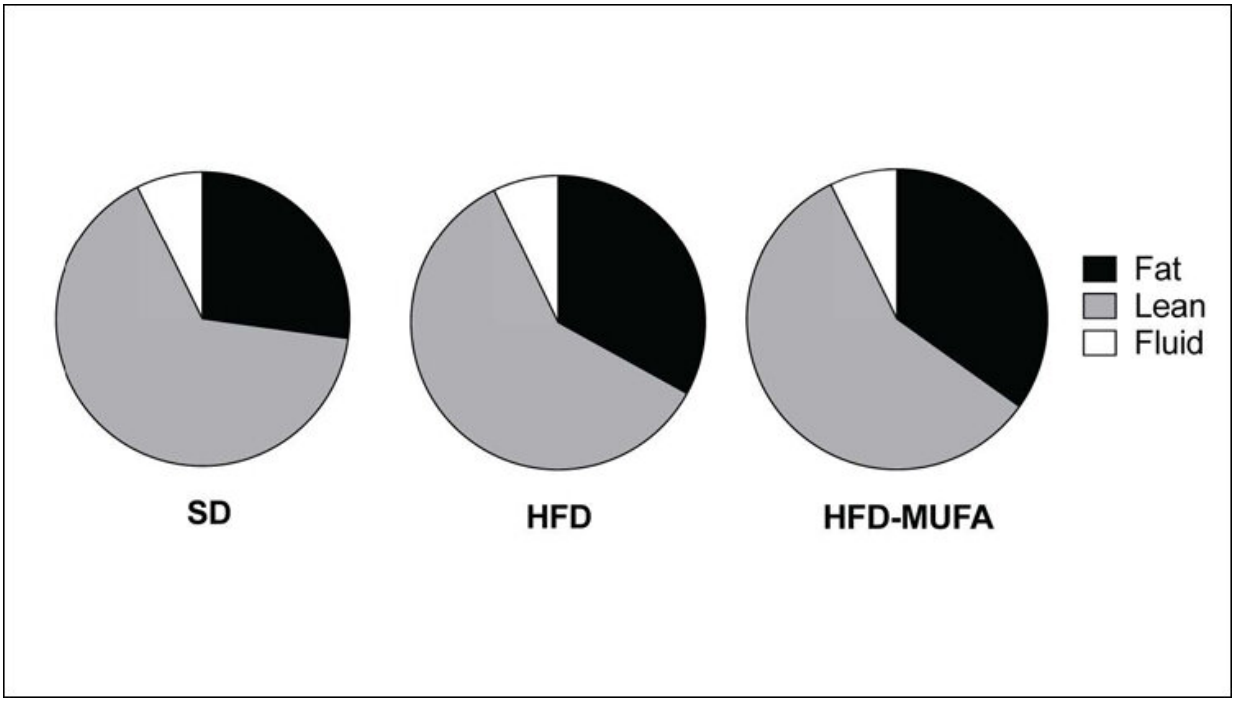

Figure 1D. A MUFA-rich diet reverses neuropathy in prediabetic mice. Credit: Rumora et al., JNeurosci (2019)

Swapping dietary saturated fats for monounsaturated fats reverses nerve damage and restores nerve function in male mice, finds new preclinical research published in *JNeurosci*. These data support further investigation of diets rich in healthy fats as a potential treatment for the nerve damage that occurs with diabetes, known as diabetic neuropathy.

Type 2 diabetes is associated with high-fat diets characterized by large amounts of saturated fats. In contrast, monounsaturated fatty acid-rich diets have been shown to have health benefits. Professor Eva Feldman and colleagues at the University of Michigan investigated how these two types of fats affect the progression of diabetic neuropathy, the most common complication of diabetes.

The researchers found switching mice from a saturated fat-based diet to a diet rich in monounsaturated fats derived from sunflower oil restored and protected nerve function in obese mice. Studying the beneficial effects of monounsaturated fats in sensory dorsal root ganglion neurons showed the intervention helped the cells maintain normal energy production.

These results suggest that interventions targeting dietary fats may provide a new therapeutic avenue for the treatment of diabetic neuropathy.

More information: *JNeurosci* (2019). DOI: 10.1523/JNEUROSCI.3173-18.2019

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