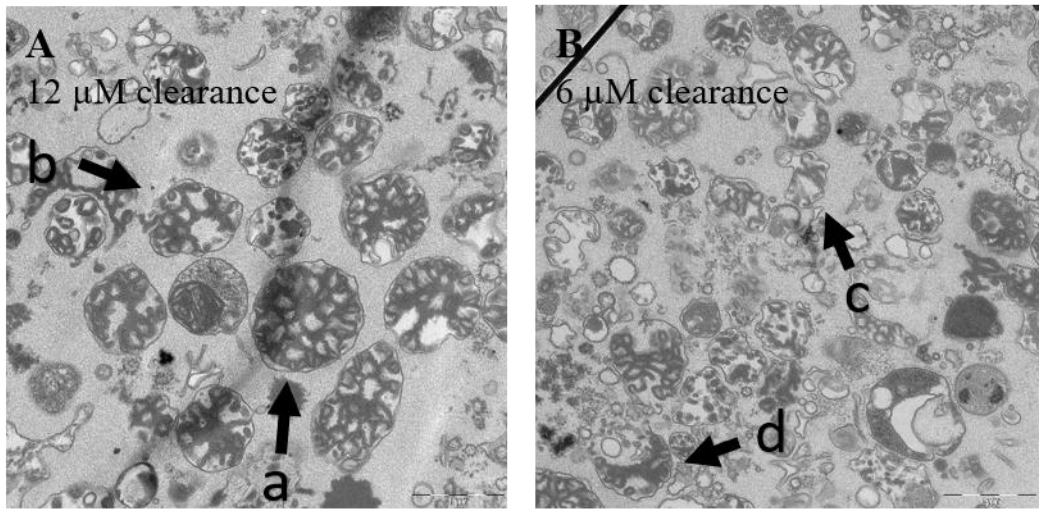
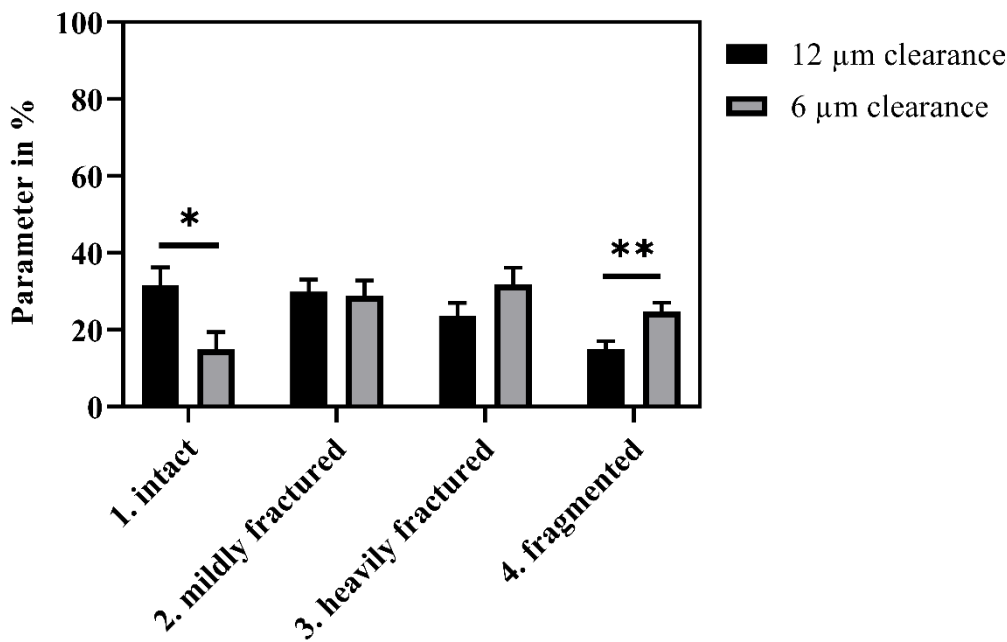


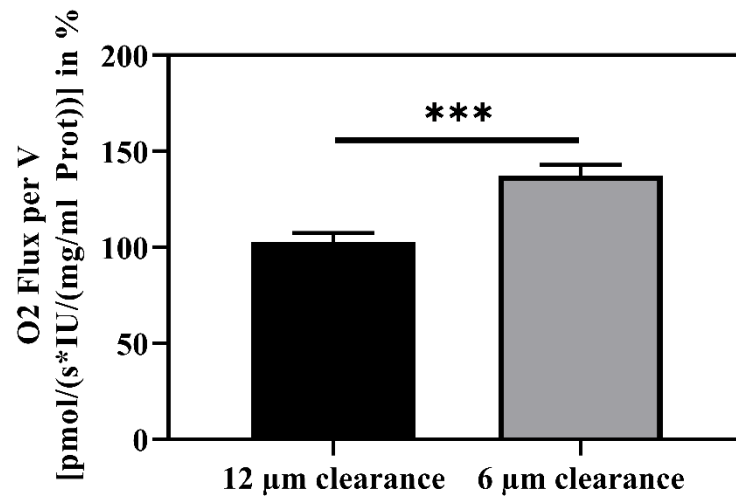
**Supplementary Material:**



**Supp.1:** Transmission electron microscopic pictures of mitochondria from *C. elegans* isolated with a 12μm (A) or 6μm ball clearance (B). Degrees of damage are indicated by exemplary pointers (a = “intact”; b = “mildly fractured”; c = “heavily fractured” and d = “fractured”).



**Supp. 2:** Mitochondria isolated from nematodes with 12 μm or 6 μm clearance were assessed by transmission electron microscopy and categorized into four categories (intact, mildly fractured, heavily fractured and fragmented) as described in the Methods section. Mean ± SEM; students *t*-test; *p*\* < 0.05, *p*\*\* < 0.01.



14

15 **Supp. 3:** Cytochrome *c* addition, as a marker for intactness of the outer mitochondrial membrane, increases  
 16 respiration after isolation with a 6 μm compared to a 12 μm clearance, indicating a fractured outer membrane.  
 17  $n = 5$ ; Mean  $\pm$  SEM; students *t*-test;  $p^{***} < 0.001$ .

18