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## **Preservative effect of electrolyzed reduced water on pancreatic beta-cell mass in diabetic db/db mice.**

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Oxidative stress is produced under diabetic conditions and involved in progression of pancreatic beta-cell dysfunction. Both an increase in reactive oxygen free-radical species (ROS) and a decrease in the antioxidant defense mechanism lead to the increase in oxidative stress in diabetes. Electrolyzed reduced water (ERW) with ROS scavenging ability may have a potential effect on diabetic animals, a model for high oxidative stress.

Therefore, the present study examined the possible anti-diabetic effect of ERW in genetically diabetic mouse strain C57BL/6J-db/db (db/db). ERW with ROS scavenging ability reduced the blood glucose concentration, increased blood insulin level, improved glucose tolerance and preserved beta-cell mass in db/db mice. The present data suggest that ERW may protect beta-cell damage and would be useful for antidiabetic agent. PMID:17268057

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