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**Title:** Dive-induced modifications in platelet kinetics in rats

**Authors:** Giry, PB  
 Porlier, G  
 Eastman, D  
 Radomski, MW

**Keywords:** decompression  
 platelet kinetics  
 rat  
 animal

**Issue Date:** 1977

**Abstract:** The effect of a simulated dive to 8 ATA on platelet kinetics was studied in normal and splenectomized male and normal female rats. Platelet production and consumption was measured in vivo 1 h and 1 day postdive using <sup>35</sup>S and <sup>3</sup>H isotopes. An increased release of new platelets from the bone marrow and the spleen into the circulation was found 1 h postdive. Data from splenectomized males show that the consumption of new platelets was also increased, resulting in normal platelet counts. The delayed decrease in platelet levels one day postdive has been shown to be caused by a return of new platelet production to normal and an increase in old platelet consumption and/or splenic resorption. No evidence of lung trapping of platelets was found. It appears that decompression stimulates platelet production in the bone marrow and may serve as an adaptive, protective mechanism against severe thrombocytopenia that would otherwise develop in professional divers. Animals Blood Cell Count Blood Platelets/\*metabolism Bone Marrow/physiology Comparative Study \*Decompression Decompression Sickness/blood Female Lung/analysis Male \*Pressure Rats Sex Factors Splenectomy

**Description:** Undersea and Hyperbaric Medical Society, Inc. (<http://www.uhms.org> )

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