

## **EFFECT OF VIBRATION ON HEART RATE OF MOTORCYCLE RIDER**

**SHIVAKUMARA B S AND SRIDHAR V**

### **Abstract**

Where there is a motion there is a vibration. Vibration is more in motorcycles due to dynamic nature of it. The heart rate is the best indicator of health of any human being. The present experimental work is an attempt to study the effect of vibration on the heart rate of the motorcycle rider. The frequency and acceleration values obtained during the experiments found to be above the safer limits which would affect heart rate. The magnitude of heart rates measured during the experiments show that there is a variation in the heart rate with respect to rest state. Moreover, the average relative heart rates show a good correlation with hand arm vibration average acceleration, hand arm vibration rms average acceleration, whole body vibration average acceleration and whole body vibration rms average acceleration. So, the vibration dosage in long run will lead to health hazard in general and affects heart rate of the rider.

---

**Keywords:** Vibration, Heart rate, motorcycle rider