

## **Use of a Noninvasive Pulse CO-Oximeter to Measure Blood Carboxyhemoglobin Levels in Bingo Players.**

Hampson N.B., Scott K.L. *Respir Care*. 2006 Jul;51(7):758-60.

### **Background**

Though smokers are known to have elevated blood carboxyhemoglobin (COHb), due to inhalation of carbon monoxide (CO) in cigarette smoke, limited data exist regarding COHb levels in nonsmokers exposed to secondhand smoke.

### **Methods**

COHb was measured using a new noninvasive Pulse CO-Oximeter (Rad-57, Masimo, Irvine, California) in 38 subjects entering a bingo hall where smoking was allowed, then again as they exited 3 hours later.

### **Results**

The mean  $\pm$  SD baseline COHb for the entire group was 3.3  $\pm$  1.8%, for the 23 nonsmokers it was 2.2  $\pm$  0.7%, and for the 15 smokers it was 4.9  $\pm$  1.9%. The nonsmokers' mean COHb was unchanged, at 2.2  $\pm$  0.8%, whereas the smokers' mean COHb fell to 3.2  $\pm$  1.9%.

### **Conclusions**

The nonsmokers were not significantly exposed to CO from secondhand smoke in the setting we tested. The smokers probably consumed fewer cigarettes while playing bingo than they did prior to arrival. The Rad-57 pulse CO-oximeter is easy to use in the ambulatory setting.