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**Original article:**

**Impact of anemia, iron deficiency on physical and cardio respiratory fitness among young working women in India**

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**Abstract:**

**Aims:** Anemia, iron deficiency is highly prevalent in working women in India and more so in low socio economic working population. A negative influence of anemia and iron deficiency exists on physical fitness index(PFI) in women.

**Objectives:** This study is set to understand the impact of anemia, iron deficiency(ID) on physical and cardio respiratory fitness on young women and also to evaluate the modified QCT in field study.

**Methods:** 600 apparently healthy non pregnant non lactating women, aged 18-55 years, working in small scale industries, Davangere, Karnataka were recruited by simple random sampling. 3 groups of 200 were evaluated (mild-moderate anemic, ID & control).PFI was determined by modified Queens College step test (QCT) and VO2max was calculated.

**Results:** A statistical significant value of PFI and VO2max score was observed in the anemic, ID groups (p<0.05).

**Conclusion:** Indian women frequently complain of early fatigue in the lower limb. Though difficult to complete the QCT, it still is a good indicator of PFI. Anemia & ID impair the delivery of oxygen to tissues and lead to a reduced *V*O2max and thus have impact on the physical activity.

**Key words**: anemia, iron deficiency, physical fitness, women