

ROP 23 - THE EFFECT OF SMOKING ON MALE FERTILITY HORMONES IN SMOKERS IN SOUTH-EASTERN NIGERIA

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Background & Objectives: Tobacco smoking is considered a major risk factor for infertility. The investigated the relationship between tobacco smoking and serum concentrations of male reproductive hormones - LH, FSH, testosterone and prolactin.

- **Methods:** 56 tobacco smokers and 31 non-smokers aged between 19 and 45 years were recruited for this study. The tobacco smokers were subdivided into heavy (13), moderate (10) and light smokers based on the WHO classification.

hormones in male smokers and non smokers

Parameter	Smokers	Non-smokers	Calc t	Crit t	p-value
Prolactin (ng/ml)	8.7±5.6	9.6±6.8	0.64	1.98	>0.05
FSH (mIU/ml)	6.8±6.34	4.3±2.61	2.61	1.98	<0.05
LH (mIU/ml)	15.2±1.10	10.7±0.93	3.08	1.98	<0.05
Testosterone (ng/ml)	8.9±4.1	12.2±4.1	3.60	1.98	<0.05

MEAN ± SD

hormones in heavy, moderate and light smokers

Parameter	Heavy Smokers	Moderate Smokers	Light Smokers	Calc f	Crit f	p-value
Prolactin (ng/ml)	12.2±8.9	8.9±4.6	7.2±4.0	2.36	2.71	>0.05
FSH (mIU/ml)	8.0±10.5	5.3±3.9	7.2±4.8	1.96	2.71	>0.05
LH (mIU/ml)	17.7±9.7	15.5±9.9	14.1±7.1	3.19	2.71	<0.05
Testosterone (ng/ml)	8.2±3.6	9.3±4.0	10.4±3.1	5.15	2.71	<0.05

may be attributed to lower levels of testosterone rather than low levels of FSH and LH. This decrease in testosterone levels may translate to a decrease in fertility as testosterone is the principal reproductive hormone in males. Low testosterone levels have also been associated with metabolic syndrome which is an emerging risk factor for prostate cancer and with prostate cancer syndrome which is an emerging risk factor for prostate cancer.