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# The Effect of active and passive warming up on blood glucose and lactic acid before sub-maximal physical activity

*by* Gadis Meinar Sari

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# Programme Book

**BALI 2014**



# Programme Book

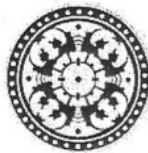
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"With new mind set and widen horizon to catch the future: Physiology is the basic science for human life"

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methods, test and measurement sti-and-reach and physical activity questionnaire using PAR-Q and GPAQ questionnaire.

Result obtained an average age of male respondents was  $40 \pm 7$  years and the average age of female respondents was  $38 \pm 6$  years. From the measurement results, the majority of respondents have a poor fitness level (55.2%) and the majority of respondents have a low level of physical activity (58.6%).

Educational staffs of FKUP have poor physical fitness and low physical activity levels. Another exploration still be needed regarding the influence of this condition to work performance. But still, spesific exercise or health programme to enhance these aspects need to be done immediately.

Keyword: physical activity, physical fitness, education staffs

AI145

### **KEBAR'S GRASS IMPROVES SPERMATOGENIC QUANTITY AND SPERMATOZOA QUALITY IN RATS EXPOSED WITH CIGARETTE SMOKE**

Adrien Jems Akiles Unitly<sup>1,2</sup>, Nastiti Kusumorini<sup>3</sup>, Srihadi Agungpriyono<sup>3</sup>, Aryani Sismin Satyaningtijas<sup>3</sup>, Arief Boediono<sup>3</sup>

<sup>1</sup> Biological Studies Program, Faculty of Mathematics and Natural Sciences, University of Pattimura Ambon; <sup>2</sup> Doctoral program in Physiology and Pharmacology, Postgraduate School, Bogor Agricultural University; <sup>3</sup> Department of Anatomy, Physiology and Pharmacology, Faculty of Veterinary Medicine, Bogor Agricultural University

Kebar's grass from Kebar Sub District, Manokwari, West Papua is known as traditionally medical herb for reproductive performance. This research used a completely randomized design (CRD) with the use of extract kebar's grass 0.0945 mg/gr body weight/day to improve reproductive performance of male rat exposed with cigarettes smoke. Twelve male rats were divided into 4 groups, each 3 rats in group. A1 and A2 are the group exposed with cigarette smoke 10 cigarettes/rat/day for 20 days and 60 days, A3 and A4 are the group exposed with cigarette smoke 10 cigarettes/rat/day and followed by giving of extract kebar's grass for 20 days and for 60 days. The parameters observed was spermatogenic quantity and spermatozoa quality. The results showed that extract kebar's grass 0.0945 mg/gr body weight/day could improve the reproductive performance in male rat, including the increase of spermatogenic quantity and spermatozoa quality. *Keywords: Cigarettes smoke, kebar's grass, spermatogenic, spermatozoa.*

AK165

### **THE EFFECT OF ACTIVE AND PASSIVE WARMING UP ON BLOOD GLUCOSE AND LACTIC ACID BEFORE SUB-MAXIMAL PHYSICAL ACTIVITY**

Aminudin<sup>1</sup>, Gadis Meinar Sari<sup>2</sup>, Choesnan Effendi<sup>2</sup>

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Warming up is a beginning activity in exercise to prepare body physiologically and psychologically to do more heavy activity and reduce flawed risk before doing exercise or competition.

Research design is "the randomized pretest- posttest control group design". The samples of this research are eighteen students of 21- 23 years old. The students are divided into two groups. Nine students are in active warming up group (G1) and nine students are in passive warming up group (G2). After warming up each group was given sub-maximal physical activity by paddling ergocycle by 80% HRmax. The measurement of blood glucose and lactic acid was done four times: Pre-test, immediately after warming up, 5 minutes and 30 minutes after sub-maximal physical activity.

The results of the blood glucose showed (mg/dL); G1:  $99,66 \pm 2,73$  ;  $96,66 \pm 2,64$  ;  $92,55 \pm 2,18$  ;  $89,88 \pm 3,44$ . G2:  $96,88 \pm 3,01$  ;  $99,22 \pm 2,22$  ;  $93,55 \pm 3,24$  ;  $91,11 \pm 5,55$ . The blood lactic acid (mmol/dL); G1:  $2,78 \pm 0,41$  ;  $7,41 \pm 1,41$  ;  $8,82 \pm 1,50$  ;  $3,40 \pm 0,49$ . G2:  $1,33 \pm 0,41$  ;  $2,07 \pm 0,65$  ;  $6,30 \pm 1,39$  ;  $3,10 \pm 0,66$ . There is no difference between

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## GRADEMARK REPORT

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FINAL GRADE

**/100**

GENERAL COMMENTS

**Instructor**

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