

**ABSTRACTION**  
**INFLUENCE LEG – PRESS EXERCISE FOR HIGH AND LOW INTENSITY TO**  
**EXPLOSIVE POWER AND ENDURANCE LEG MUSCLE**

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Explosive power and leg muscle endurance represent component which determine in achievement athletics very much. Very many factor influencing explosive power and leg muscle endurance and example leg press exercise with intensity 50% max and intensity 80% max.

This research is conducted as a mean to know influence from result of leg – press exercise low intensity (50% max) and high intensity (80% max) to explosive power and endurance leg muscle.

Planning of research used is “The pre test – Post test control group design”. People sample wich is selected by student Faculty Science of Sport UNESA age 19 year – 23 year, healthy and not be contra indication of physical exercise. People sample to be divided to become three group that is group control ( $k_0$ ), Group intensity 80% max ( $k_1$ ), and group intensity 50% max ( $k_2$ ). Third of this group, two groups ( $k_1$  and  $k_2$ ) given by treatment that is leg – Press exercise during 6 week with frequency 3 times one week, each time exercise consist of 15 times repetition every a set of with amount 5 set. While first group ( $k_0$ ) as control that is with out treatment.

The list of explosive power and endurance leg muscle can be taken by moment before exercise (pre – test), after exercise phase 1 during 3 week (post test 1) and after exercise phase 2 during 6 week (post test 2).

The list result of measurement processed by using statistical and descriptive statistic of inferensial (distribution normality test, varian homogeneity test, anova/manova test, multi variate test, and LSD) with significant 5% ( $\alpha = 0,05\%$ ).

The result of anova/manova test, to Explosive power - leg muscle pre test and Post test give result of that : (1) there no difference having a meaning of ( $P = 0,773$ ) among pre test ( $107,3202 \pm 13,3004$ ) with post test 1 ( $107,4758 \pm 14,500$ ) and post test 2 ( $111,1443 \pm 12,7477$ ) at  $k_0$  group, (2) there is difference wich is very have a meaning of ( $P = 0,000$ ) among pre test ( $115,1027 \pm 14,9328$ ) with post test 1 ( $117,3862 \pm 15,0316$ ) and post test 2 ( $121,9217 \pm 14,5004$ ) at  $k_1$  group, and (3) there is difference having a meaning of ( $P = 0,004$ ) among pre test ( $103,2972 \pm 14,7728$ ) with post test 1 ( $104,0713 \pm 14,5170$ ) and post test 2 ( $105,5271 \pm 14,5437$ ) at  $k_2$  group.

The result of anova/manova test to variable endurance leg muscle pre test and Post test give result of that : (1) there is no difference having a meaning of ( $P = 0,434$ ) among pre test ( $29,9000 \pm 2,6000$ ) with post test 1 ( $24,2000 \pm 2,5700$ ) and post test 2 ( $24,6000 \pm 2,5700$ ) at  $k_0$  group, (2) there is difference wich is very have a meaning of ( $P = 0,000$ ) among pre test ( $28,5000 \pm 6,5200$ ) with post test 1 ( $41,3000 \pm 7,2000$ ) and post test 2 ( $65,0000 \pm 13,9500$ ) at  $k_1$  group, and (3) there is difference which is very have a meaning of ( $P = 0,000$ ) among pre test ( $29,7000 \pm 6,0200$ ) with post test 1 ( $62,9000 \pm 14,0700$ ) and post test 2 ( $105,2000 \pm 19,5600$ ) at  $k_2$  group.

The conclusion this research is : (1) leg – Press exercise to low intensity (50% max) can increase explosive power and endurance leg muscle, (2) leg – press exercise to high intensity (80% max) can increase explosive power and endurance leg muscle. (3) leg – press exercise low intensity (50% max) more is increasing of endurance leg muscle from at high intensity (80% max) and (4) leg – press exercise high intensity (80% max) more is increasing of explosive power leg muscle from at low intensity (50% max).

**Keywords** : Explosive Power, Endurance, Leg-Press Low Intensity and High Intensity.