



## EFFECT OF POSITIONING OF THE CONTRALATERAL LOWER LIMB ON NEURODYNAMICS OF STRAIGHT LEG RAISE TEST.

### Nursing

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### ABSTRACT

**AIM AND OBJECTIVE :-** To quantify ranges of straight leg raise test with different positioning of the contralateral lower limb.

**DESIGN:-** Observational study.

**METHODS:-** The study sample included 50 subjects . Different data collection forms were used to covers personal and professional data, the prevalence and association of effect of positioning of the contralateral lower limb on neurodynamics of straight leg raise test.

**RESULTS:-** The study found that the majority of the participants experienced a LBP on regular basis. The participants could identify the most important physical risk factors associated with the low back pain, but neglected the psychological risk factors.

**CONCLUSION:-** Range of SLR gets increased in contralateral limb in abduction than in extension.

### KEYWORDS

Back Pain, Slr, Prevalence.

### INTRODUCTION

Low back pain is a common disorder of the back. It is associated with major cost, in terms of health, resource usage and worker disability and absenteeism (Frank JW, 1996). Non-specific low back pain is defined as low back that is not attributable to a recognizable, specific pathology. Extrinsic factors include environmental and physical factors, whereas intrinsic factors provide for personal and ergonomic risk factors. Prolonged standing at workstations can cause muscle fatigue and mental stress. Most industrial jobs have to be done in a standing posture. Standing has been associated with versatility because of the mobility of the posture and degree of freedom. Reviews of literature describing LBP point prevalence in the developed world have produced variable estimate of prevalence rate. In Asia, an estimated 2.06 million episodes of low back pain occurred among a population at risk of over 1.48 billion person-years for an incidence rate of 1.39 per 1,000 person-years in united states.

### AIMS OF THE STUDY:-

1. To identify ranges of straight leg raise test with different positioning of the contralateral lower limb.
2. To establish which contralateral limb position produces maximum neural tension in ipsilateral straight leg raise.

### RESEARCH DESIGN:-

#### STUDY DESIGN:-

The study design is observational in nature.

### SAMPLING:-

50 patients of low back back ache with unilateral or bilateral sciatic pain. Convenient sampling is done.

### INCLUSION CRITERIA:-

1. Low back ache with or without lower limb radiculopathy.
2. SLR basic positive (30-70).

### EXCLUSION CRITERIA:-

1. Patients on long term sick leave.
2. Patient undergoing any medical treatment for back ache.

### INSTRUMENTATION AND TOOL FOR DATA COLLECTION:-

1. Plinth
2. Goniometer
3. Assessment form data collection form
4. Straight leg raise test.

### METHODOLOGY:-

out of 50 objects, 38 subjects were noticed with unilateral lower limb radiation and 12 subjects were noticed with bilateral lower limb radiation of pain. All the 38 subjects were matched for anthropometric

measurements (height, weight and BMI) to ensure randomization. Each subject was assessed with straight leg raise test with the contralateral lower limb in neutral and range of motion was recorded with universal goniometer.

### DATA ANALYSIS:-

comparison of mean of SLR with opposite leg in neutral, abduction and extension:

SLR with contralateral leg in neutral position	SLR with contralateral leg in abduction	SLR with contralateral leg in extension	F-value	p-value
41.84	62.89	51.18	59.6	0.000

### RESULT:-

The results that there was a strongly statistically significant relationship between neurodynamics of straight leg raise of contralateral limb in neutral position, 200 abduction and 100 of extension. Using ANOVA test it is seen statistically highly significant value is in abduction that is 62.89, as compared to that in extension is 51.18 and in neutral 41.84. From here it is also clear that highly sensitive result is seen in contralateral limb in neutral position. Using one way test of ANOVA value of f-test is 59.6.

### DISCUSSION:-

The results of this present study reported a significant degree of comparison of mean of straight leg raise with contralateral leg in neutral, abduction & extension position. As said by Van Dieen and Oude Vrielink proposed a work-rest schedule to minimize the discomfort associated with prolonged standing.

### LIMITATIONS:-

1. The sample size was small.
2. There were no male respondents.
3. We did no observation on lower limb lymphedema in the current study.

### REFERENCES:-

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