

PENGARUH SENAM KAKI TERHADAP RISIKO NEUROPATI DIABETIK  
PADA PASIEN DIABETES MELITUS DI WILAYAH KERJA UPTD  
KESEHATAN PUSKESMAS HANDAPHERANG

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**INTISARI**

Diabetes melitus merupakan penyakit yang disebabkan karena gangguan metabolik akibat dari pankreas yang tidak mampu memproduksi cukup insulin yang dibutuhkan oleh tubuh. Neuropati diabetik perifer adalah suatu komplikasi kronik dari DM dimana saraf-saraf telah mengalami kerusakan sehingga kaki pasien menjadi kebas (tidak merasakan sensasi), adanya tekanan, injuri/trauma, atau infeksi. Pengecekan awal neuropati diabetik menggunakan *Michigan Neuropathy Screening Instrument* (MNSI), TCNS diperiksa dengan memeriksa gejala neuropati, dan skrining neuropati menggunakan alat Semmes Weinstein monofilament. Penentuan skrining neuropati dilakukan dengan penusukan pada 10 titik ekstremitas bawah. Latihan senam kaki diabetes dapat digunakan sebagai upaya awal dalam mencegah, mengontrol dan mengatasi komplikasi DM. Latihan senam kaki diabetes menyebabkan terjadinya peningkatan aliran darah, jala-jala kapiler lebih banyak terbuka. Penelitian ini bertujuan untuk mengetahui pengaruh senam kaki terhadap risiko neuropati pada pasien diabetes melitus. Penelitian ini menggunakan metode penelitian quasi eksperimen pendekatan *pre test post test*, serta menggunakan data primer data yang di dapatkan dari lembar observasi. Hasil terdapat perbedaan yang signifikan skor neuropati antara pre test hari pertama dan post test hari terakhir mengalami kenaikan rata-rata skor 2,3. Berdasarkan hasil uji T sampel berpasangan diperoleh nilai t hitung = 5,647 dengan  $p = 0,00001$  atau  $<0,05$ .

Kesimpulan senam kaki berpengaruh terhadap risiko neuropati diabetik pada pasien diabetes melitus di wilayah kerja UPTD Puskesmas Handapherang.

Kata Kunci : Senam Kaki, Skor Neuropati, Instrumen MNSI.

THE EFFECT OF FOOT EXERCISES ON THE RISK OF DIABETIC  
NEUROPATHY IN PATIENTS WITH DIABETES MELLITUS IN THE  
WORKING AREA OF THE HANDAPHERANG HEALTH CENTER

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**ABSTRACT**

Diabetes mellitus is a disease that is caused due to metabolic disorders due to the pancreas which is unable to produce enough insulin needed by the body. Peripheral diabetic neuropathy is a chronic complication of DM where the nerves have been damaged so that the patient's feet become numb (no sensation), pressure, injury / trauma, or infection. Initial checking of diabetic neuropathy using the Michigan Neuropathy Screening Instrument (MNSI), TCNS was examined by examining the symptoms of neuropathy, and screening of neuropathy using the Semmes Weinstein monofilament tool. The determination of neuropathy screening is done by stabbing at the 10 lower extremity points. Diabetes foot exercises can be used as an initial effort in preventing, controlling and managing DM complications. Diabetes foot exercises cause an increase in blood flow, the capillary nets are more open. This study aims to determine the effect of foot exercises on the risk of neuropathy in patients with diabetes mellitus. This study uses a quasi-experimental method of the pre-test post-test approach, as well as using primary data obtained from the observation sheet. The results showed a significant difference in neuropathy scores between the first day's pre-test and the last-day's post-test, with an average increase of 2.3 Based on the results of the paired T-test results obtained  $t$  value = 5.647 with  $p = 0.00001$  or  $<0.05$ .

Conclusion leg exercise affects the risk of diabetic neuropathy in patients with diabetes mellitus in the working area of UPTD Puskesmas Handapherang.