

Oncology and physiotherapy for the pelvic floor

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Every year, about 30,000 new cancer patients are diagnosed in Israel and the number of recovering patients is expected to increase by more than 10,000 people each year¹. Early diagnosis and new treatments contribute to prolonging the lives of oncology patients and increasing the number of survivors, but there are still many side effects, including pelvic floor dysfunctions that affect patients' quality of life². This paper describes the importance of pelvic floor physiotherapy in oncology patients' rehabilitation leading to improved quality of life.

Prostate, breast and colon cancers are among the most common types of cancer in the population¹. Treatments of those and other malignancies in reproductive organs may impair, among other things, the function of the pelvic floor, which is responsible for controlling both sphincters and sexual function³. Recent studies demonstrate that the issue of pelvic floor dysfunction in oncology patients is not commonly discussed. These patients are typically not identified and therefore do not receive help or treatment. They are usually grateful to have survived that they feel guilty and uncomfortable talking about issues that are considered relatively "minor." In addition, many of them are unaware that physiotherapy treatments for pelvic floor rehabilitation are covered by their health insurance, and suffer without receiving any therapy for their condition¹.

Women receiving oncological treatments for malignant tumors in their reproductive organs (ovaries, vagina, uterus, etc.) are at a higher risk of suffering from sexual dysfunction and urinary and fecal incontinence than the general population. After treatment for colorectal cancer, women and men suffer from urinary system dysfunction (38% -60%) and bowel movement symptoms (38% -75%)⁴. For example, up to 80% of patients after lower anterior resection surgery will suffer from low anterior resection syndrome, which manifests in frequent bowel movements, failure to defecate and incomplete emptying⁵.

Similar to patients with gynecologic cancer, women recovering from breast cancer often suffer from at least one genital system-related symptom. One of the treatments for breast cancer is an anti-hormonal treatment, which lowers estrogen levels and causes atrophy of the genital system. The condition mimics menopause and its symptoms include vaginal dryness, difficulty in intercourse, decreased libido, and decreased ability to control the sphincters^{6,7}.

Men can have genital system tumors such as prostate, penile, and testicular cancers^{8,9}. The cancer itself or its treatments' side effects (surgeries, radiation, chemotherapy, cryotherapy, and hormonal therapies) cause significant impairment of pelvic floor function in these patients. Radiation therapy, for example, damages various tissues, causing scarring and narrowing, and leads to dysfunction^{10,11}. A large percentage of patients experience sexual dysfunction, urinary incontinence, and partial or lack of control of the sphincters. These effects significantly impair patients' quality of life and affect their emotional state¹².

Therefore, cancer patients' routine assessments should include specific questions related to pelvic organ function, including the ability to control urine and stool, and sexual function. The information obtained will assist with early detection and guide health professionals to more quickly refer patients for pelvic floor rehabilitation therapy³.

A pelvic floor physiotherapy assessment involves taking a detailed medical history, including surgeries, treatments, medications, and function. The therapist then prepares the patient for the internal exam by providing an accurate and detailed explanation, taking into account the patient's medical condition. An internal manual examination of the vagina or anus is performed in order to assess the function of the pelvic floor muscles and the tissue quality. Treatment options includes behavioral changes, providing tools for dealing with the various symptoms, manual treatment techniques for the soft tissues such as a special massage for scars and painful areas, use of

expanders, exercises, and more. These treatments can alleviate and reduce the side effects manifest in the pelvic floor and contribute to improving patients' quality of life^{2,13}. It is important to note that the rehabilitation process is based on mutual consent and trust between the therapist and patient.

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References

1. Israel Cancer Association (2020). 20 years to World Cancer Day. Retrieved from: https://www.cancer.org.il/dover_news/new.aspx?NewId=1912
2. Stout, N. L.; Santa Mina, D., Lyons, K. D., Robb, K., Silver, J. K. (2020). A systematic review of rehabilitation and exercise recommendations in oncology guidelines. *CA: A Cancer Journal for Clinicians*, 0, 1-27, doi:10.3322/caac.21639
3. Huffman, L. B., Hartenbach, E. M., Carter, J., Rash, J. K., & Kushner, D. M. (2016). Maintaining sexual health throughout gynecologic cancer survivorship: A comprehensive review and clinical guide. *Gynecologic oncology*, 140(2), 359–368. <https://doi.org/10.1016/j.ygyno.2015.11.010>
4. Lin, K. Y., Frawley, H. C., Granger, C. L., & Denehy, L. (2017). The Australian Pelvic Floor Questionnaire is a valid measure of pelvic floor symptoms in patients following surgery for colorectal cancer. *Neurourology and urodynamics*, 36(5), 1395–1402. <https://doi.org/10.1002/nau.23122>
5. Dulskas, A., Smolskas, E., Kildusiene, I., & Samalavicius, N. E. (2018). Treatment possibilities for low anterior resection syndrome: a review of the literature. *International journal of colorectal disease*, 33(3), 251–260. <https://doi.org/10.1007/s00384-017-2954-x>
6. Stabile, C., Goldfarb, S., Baser, R. E., Goldfrank, D. J., Abu-Rustum, N. R., Barakat, R. R., Dickler, M. N., & Carter, J. (2017). Sexual health needs and educational intervention preferences for women with cancer. *Breast cancer research and treatment*, 165(1), 77–84. <https://doi.org/10.1007/s10549-017-4305-6>
7. Sousa, M. S., Peate, M., Jarvis, S., Hickey, M., & Friedlander, M. (2017). A clinical guide to the management of genitourinary symptoms in breast cancer survivors on endocrine therapy. *Therapeutic Advances in Medical Oncology*, 269–285. <https://doi.org/10.1177/1758834016687260>
8. Israel Cancer Association (n.d.). The male sex system. Retrieved from: <https://www.cancer.org.il/template/default.aspx?PageId=5870>
9. Stotts R. C. (2004). Cancers of the prostate, penis, and testicles: epidemiology, prevention, and treatment. *The Nursing clinics of North America*, 39(2), 327–340. <https://doi.org/10.1016/j.cnur.2004.03.002>
10. Israel Cancer Association (n.d.). Penile Cancer. Retrieved from: <https://www.cancer.org.il/template/default.aspx?PageId=5874>
11. Israel Cancer Association (n.d.). Radiation therapy for prostate cancer. Retrieved from: <https://www.cancer.org.il/template/default.aspx?PageId=5952#%D7%AA%D7%95%D7%A4%D7%A2%D7%95%D7%AA%20%D7%94%D7%9C%D7%95%D7%95%D7%90%D7%99>
12. Liatsikos, E. N., Assimakopoulos, K., & Stolzenburg, J.-U. (2008). *Quality of Life after Radical Prostatectomy*. *Urologia Internationalis*, 80(3), 226–230. doi:10.1159/000127331
13. Brennen, R., Lin, K. Y., Denehy, L., & Frawley, H. C. (2020). The Effect of Pelvic Floor Muscle Interventions on Pelvic Floor Dysfunction After Gynecological Cancer Treatment: A Systematic Review. *Physical therapy*, 100(8), 1357–1371. <https://doi.org/10.1093/ptj/pzaa081/>