KNGF Guideline on Oncology

SUMMARY

This is an overview of the most important information in the KNGF Guideline on Oncology (KNGF, 2022).
You can find the complete guideline on the KNGF knowledge platform.

Exercise interventions for cancer	Regardless of the phase in which the patient is, the guidance can consist of the following components: • encouraging exercise and providing advice about this; • optimising activities that are relevant for the patient, and optimising the functions and anatomical characteristics that constitute a prerequisite for exercise, and teaching the patient to maintain these; • combating complaints and barriers that the patient experiences during exercise; • promoting behavioural change towards an active lifestyle.

Complicating factors

During the guidance the therapist may experience barriers stemming from the complexity of a course of treatment for people living with or after cancer. The KNGF Guideline on Oncology therefore contains recommendations concerning four relevant complicating factors that can play a role in the physical therapy and exercise therapy treatment of people living with or after cancer.

Bone metastasis	Consult with the referrer to see if there is stable bone metastasis. Supplementally, collect as much information as possible that is important to the physical therapy or exercise therapy treatment; especially in connection with the risk of occurrence of a (pathological) fracture or compression of the spinal cord. This information must entail at least the following: • the location and type of bone metastasis (as detailed as possible); • the presence of neurological symptoms; • the presence of osteoporosis; • the presence of pain related to the location of the metastasis; • prior fractures; • the treatment administered due to the bone metastasis; • the assessment of the risk of falling. Reassess this information periodically.
	Consult with the treating physician or nursing specialist to come up with a suitable physical therapy or exercise therapy treatment plan.
	Prior to starting an exercise intervention, consult with the patient and weigh the benefits and disadvantages. When doing so, include the following: • the risks of the exercise intervention designated by the physician (such as the risk of fractures or spinal cord compression); • the degree to which the exercise intervention can be adapted in order to minimise the risks; • potential benefits of exercise intervention and the health risks of not exercising, such as the risk of falling due to inactivity and the associated increased risk of fractures.
	Offer customised exercise intervention and take into account the location and type of bone metastasis. Adjust the way in which exercise is performed based on the location of the bone metastasis, if necessary.
	Preferably offer supervised exercise intervention to patients with bone metastasis. For patients who prefer exercising independently, at minimum give them instructions on how to safely and effectively perform the exercises.
	Avoid transverse and/or compression forces at a location with proven metastasis in order to decrease the risk of a fracture. This also applies to performing the exertion diagnostics.

Bone metastasis (continuation)	Preferably administer exercise intervention with as much functional training as possible. Consider using the patient's own body weight (gravity) during this training instead of equipment and dumbbells. Formulate clear goals together with the patient and communicate expectations.
	Do **not** start working with patients with **unstable bone metastasis** without first doing a comprehensive risk assessment in consultation with the treating physician and any other involved practitioners.
	Offer patients with **unstable bone metastasis** an exercise programme or exercise instructions with a focus on functional exercises within the boundaries as agreed in a multidisciplinary team.
Cardiotoxicity	Consult with the treating physician about requesting a maximal exertion test with ECG and respiratory gas analysis based on risk factors for decreased cardiac capacity and clinical decision-making.
	Use the results of the maximal exertion test to: • determine whether physical training can be applied safely; • identify limiting factors; • make an informed decision for types of therapy and the intensity of the physical training.
	Discuss any risks for cardiovascular incidents with the patient. Prior to commencing the exercise intervention, conduct a risk-benefit analysis together with the patient. Consider the following in this analysis: • the risks of the exercise intervention (such as risks of cardiovascular incidents); • the degree to which the exercise intervention can be adapted in order to minimise the risks as much as possible; • potential benefits of exercise intervention and the health risks of not exercising.
	Avoid valsalva manoeuvres (forcefully 'detaining' the breath in order to increase intra-abdominal and intrathoracic pressure) in patients with cardiovascular complaints due to cancer treatment in connection with the associated acute increase in blood pressure.
Chemotherapy-induced peripheral neuropathy (CIPN)	For patients at risk of developing CIPN, be alert to the following signs of neuropathy complaints if these have not been observed in the past: • tingling and prickling sensations; • strange feeling in the hands and feet; • disrupted tactile sense; • decreased pain sensation or shooting pain; • decreased sensitivity to temperature; • numbness; • weakness or reduced muscle strength or function; • coordination problems. Advise patients with (a change in) neuropathy complaints to discuss these with the medical oncologist or GP.
	Consider offering an exercise intervention to patients with CIPN, preferably as soon as possible after the onset of complaints.
	Consider making adjustments in the exercise intervention based on the complaints of the individual patient with CIPN, insofar as these adjustments are necessary for being able to safely and effectively implement the desired exercise programme.
	Use the Timed Up & Go (TUG) test or the Fullerton Advanced Balance (FAB) scale for assessing the functional mobility and risk of falling of patients with CIPN who indicate that they experience balance problems or in whom you suspect balance problems.

Chemotherapy-induced peripheral neuropathy (CIPN) (continuation)	Encourage and motivate the patient with CIPN to exercise the part of the body where the neuropathy is manifesting.
	Consider an intervention aimed at behavioural change or pain education (if needed, by a specialised therapist) in patients with CIPN who are limited due to pain or discomfort.
	Offer patients with CIPN guidance aimed at decreasing or preventing fear of movement.
Fatigue	Offer supervised exercise intervention to patients with cancer-related fatigue.
	When taking the medical history, assess factors that impact fatigue (including processing problems, fear of a relapse, dysfunctional cognitions, irregular circadian rhythm, overactivity or underactivity and unrealistic expectations from the patient's environment).
	Consider multidisciplinary treatment or a cognitive behavioural approach in the following situations: • The patient is already experiencing severe fatigue at the moment of the cancer diagnosis. • The patient experiences anxiety/tension, depression or sleep problems. • There is no progress after a 12-week exercise intervention, despite adequate physiological stimulus. If this appears to be indicated based on the mentioned situations, consult with the treating physician about a referral for cognitive behavioural therapy and about continuing the exercise intervention.
	Use the Multidimensional Fatigue Inventory (MVI-20) to assess cancer-related fatigue and evaluate when there is a reason for this based on the medical history.
	Determine the duration of an exercise intervention based on the starting level and set goals, but consider offering exercise intervention for at least 12 weeks with a frequency of three days per week, with at least moderately intensive training.
	Offer customised exercise intervention. When doing so, take into account the symptoms and impairments the patient experiences. In addition to the FITT principles (frequency, intensity, type and term) and training progression during the exercise intervention, also pay attention to the overall activity regulation.
	Consider High Intensity Interval Training (HIIT) for patients who prefer this and who have sufficient exercise skills. Start with patients who cannot perform HIIT due to inhibiting co-morbidity, too low initial fitness or other symptoms and impairments, with an exercise intervention of continuous intensity.

Koninklijk Nederlands Genootschap voor Fysiotherapie
Royal Dutch Society for Physical Therapy

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The KNGF Guideline on Oncology is a publication of the Royal Dutch Society for Physical Therapy (Koninklijk Nederlands Genootschap voor Fysiotherapie – KNGF) and the Association of Cesar and Mensendieck Exercise Therapists (Vereniging van Oefentherapeuten Cesar en Mensendieck) (VvOCM).