

Wilms Tumor

Caregiver Fact Sheet

Importance of Nutrition



Overview

Growing evidence highlights the critical role of nutrition as a determinant of clinical outcomes in pediatric oncology.

Where treatment is often intensive but highly effective, nutritional status can significantly influence the child’s ability to tolerate therapy, recover from treatment-related toxicity, and achieve optimal long-term outcomes.

Nourished patients consistently demonstrate improved tolerance to chemo & radiation therapy, with fewer dose reductions or treatment delays. Adequate nutritional status supports immune function, reducing susceptibility to infections that interrupt treatment schedules & prolong hospitalization. It also contributes to improved healing after surgical interventions, including nephrectomy.

Conversely, malnutrition is associated with a range of adverse outcomes. These include increased rates of infection, longer hospital stays, reduced physical resilience, and diminished response to treatment. In severe cases, malnutrition can necessitate modifications to treatment intensity, potentially compromising overall efficacy. Beyond immediate treatment outcomes, nutrition also influences functional recovery and quality of life.

Children who maintain better nutritional status during treatment are more likely to preserve muscle mass, sustain energy levels, and engage in normal developmental activities.

This has important implications for both physical and psychosocial well-being. Emerging research also suggests that early and sustained nutritional intervention may play a role in modulating long-term risk profiles, including the development of chronic conditions such as cardiovascular disease and metabolic disorders.

This reinforces the importance of integrating nutrition into the broader continuum of care, rather than addressing it only when problems arise. From a systems perspective, effective nutritional management can contribute to more efficient healthcare delivery, reducing complications, shortening hospital stays, and improving overall treatment efficiency. This is particularly relevant in resource-constrained settings, where optimizing supportive care can have a significant impact on outcomes.

Take-away

Nutrition is not merely supportive - it is integral to the success of pediatric oncology treatment, with measurable effects on both clinical outcomes and long-term health trajectories.

Nutrition helps your child stay strong, tolerate treatment, fight infection, and recover quickly. During treatment, your child’s body is working much harder than usual, so even small amounts of food and fluids can make a meaningful difference.

Note: It’s normal for appetite to go up and down. The goal is not perfection - it’s simply to keep your child nourished and supported as best you can each day.

Fig.1/ Staged Nutrition

Staged Nutrition			
Daily Nutrition	Offer Meals Every 2-3hrs.	Encourage hydration all day	Include protein in each meal
During Treatment	Use bland foods for nausea	Avoid raw/ unpasteurised foods	Soft/ cold foods for mouth sores
Call Care Team	No food intake for 24hrs.	Persistent Vomiting	Signs of dehydration

Macronutrient Balance

Nutrient	Percentage
Carbohydrates	50%
Protein	25%
Fats	25%

Treatment Nutrition Priorities

Category	Priority Score
Hydration	90%
Calories	85%
Protein	80%
Electrolytes	75%

Nutrition Importance Across Care Stages

Stage	Importance Score
Diagnosis	70%
Treatment	95%
Relapse	100%
Survivorship	85%



Wilms Cancer Foundation (WCF)

The Wilms Cancer Foundation (WCF), is a charitable organization, that supports and represents the needs of children, families and healthcare organizations affected by pediatric renal (kidney) cancer (particularly nephroblastoma commonly known as 'Wilms'). Its mission is to establish an international program of awareness, education, advocacy, early detection treatment and support to tackle the spread of the disease.

This WCF guide is for educational purposes only. It is based on international pediatric oncology standards in Canada, the United States and Europe. Seek advice from a qualified medical professional should you have any concerns or questions.

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