

# FOOD SAFETY ON THE CANCERING JOURNEY

A practical reference for people navigating cancer treatment with compromised immunity

## WHY THIS MATTERS

When immunity is compromised — from chemotherapy, radiation, immunosuppressive medications, or cancer itself — the gap between a pathogen you would normally brush off and one that lands you in hospital is significant. Foodborne illness activates the cell danger response and drives allostatic load, exactly what terrain-based work is trying to reduce. These habits are terrain support, not just germ avoidance.

Your oncology team will track your absolute neutrophil count (ANC). Food safety guidance typically intensifies when ANC drops below 1,000/ $\mu$ L and becomes most restrictive below 500/ $\mu$ L — calibrate with their guidance rather than applying maximum restriction across your entire treatment period.

## CLEAN · SEPARATE · COOK · CHILL

### CLEAN

- **Wash hands** with soap and warm water for 20 seconds — before and after all food handling, after touching raw proteins, pets, garbage, or using the bathroom
- **Wash cutting boards, utensils, and surfaces** with hot soapy water between tasks
- **Use paper towels during treatment** — cloth towels and sponges harbor bacteria
- **Wash ALL produce under running water before cutting** — including items you peel (melon, avocado, citrus)

### SEPARATE

- **Dedicated cutting board** for raw meat, poultry, and seafood — separate from produce
- **Store raw proteins on the lowest refrigerator shelf** to prevent drip contamination
- **Separate raw proteins** in your shopping cart and grocery bags

### COOK — Safe Minimum Internal Temperatures

Food	Safe Minimum Internal Temp
Poultry, leftovers, casseroles	165°F
Ground meat (beef, pork, lamb), egg dishes	160°F
Steaks, roasts, chops	145°F + 3-min rest
Fish and shellfish	145°F
Eggs	Cook until yolk and white are fully firm

Use a food thermometer — color and texture are not reliable indicators.

### CHILL

- **Refrigerator at or below 40°F** / Freezer at or below 0°F
- **Refrigerate perishables within 2 hours** of cooking or purchase (1 hour above 90°F)
- **Store eggs and milk on an inside shelf**, not the door — temperature is more stable
- **Cool leftovers in shallow containers**; eat within 2 days; do not reheat more than once
- **Freeze what you will not use in 2 days** — this is a safety strategy, not just convenience

## HIGH-RISK FOODS: WHAT TO KNOW

- **Deli meats** — heat to 165°F (steaming hot) before eating; Listeria thrives in refrigerated ready-to-eat environments
- **Soft cheeses (brie, feta, queso fresco, camembert)** — swap for hard, pasteurized cheeses
- **Raw sprouts of any kind** — avoid entirely during treatment
- **Pre-cut and bagged produce** — buy whole and cut your own; the "triple-washed" label does not eliminate risk
- **Sushi, raw shellfish, rare meat, runny eggs, lox, refrigerated pâté** — cook all animal proteins fully
- **Fresh-squeezed and unpasteurized juices** — make at home or choose pasteurized commercial options
- **Hidden raw egg foods**: in-house Caesar dressing, hollandaise, aioli, mousse, tiramisu
- **Bulk-bin grains, nuts, and corn** — can harbor aflatoxin and mycotoxins; choose pre-packaged options
- **Dietary supplements, including probiotics** — discuss with your oncology team before continuing or starting

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## WATER SAFETY

Filtered water for drinking and cooking is not optional during immunocompromised periods. Unfiltered tap water can carry *Cryptosporidium*, *Giardia*, and other organisms that a healthy immune system manages routinely but that pose meaningful risk during neutropenic windows.

- **A pitcher-style filter (standard Brita) is not sufficient.** Use a certified carbon block or reverse osmosis system — look for NSF/ANSI Standard 53 or 58 certification.
- **Make ice at home from filtered water.** During severe neutropenic periods, avoid restaurant ice — the water source and machine cleanliness are not under your control.

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## GROCERY SHOPPING

- **"Use by" is a safety date** — do not purchase or consume after it. Treat "best by" dates as safety dates too during treatment.
- **Avoid bulk bins** — pre-packaged alternatives are safer during active treatment
- **Inspect packaging** — do not buy canned or jarred goods with dents on seams, swelling, rusting, or broken seals
- **Prioritize organic for animal proteins** — antibiotic residues and pesticide loads add to toxic burden
- **Pick up cold and frozen items last.** If you have additional stops, bring an insulated bag.
- **For grocery delivery:** check that refrigerated items are cold and frozen items are still frozen upon arrival; put them away immediately

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## COMMON KITCHEN MISTAKES

- **Thawing on the counter** — thaw in the refrigerator, in cold water (changing every 30 min), or in the microwave and cook immediately
- **One cutting board for everything** — cross-contamination from raw proteins to produce is a primary vector
- **Reusing marinades** — a marinade used on raw protein is contaminated; do not use as sauce unless brought to a full boil
- **Not washing produce with a peel** — bacteria on melon or avocado skin transfers to flesh when you cut through it
- **Damp sponges and cloth towels** — paper towels are safer during treatment; replace sponges every two weeks

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## FERMENTED FOODS AND LOW WHITE COUNTS

Fermented foods are a meaningful part of terrain-based nutrition support — but timing and immune status matter. During neutropenic periods, live microbial organisms carry real infection risk. The goal of fermented foods in terrain work is to support the immune system; during deep neutropenia, the priority is protecting a temporarily compromised one. These are not in conflict.

### Higher concern during neutropenic periods

- **Raw/unpasteurized sauerkraut and kimchi** (contain live cultures)
- **Kombucha** (live cultures, variable contamination from SCOBY)
- **Kefir from raw or unpasteurized milk**
- **Unpasteurized miso in raw or cold applications**
- **Raw apple cider vinegar with the mother; natto**

### Lower concern / generally more acceptable

- **Pasteurized sauerkraut and fermented vegetables** (live cultures killed in processing)
- **Sourdough bread** (baking kills the organisms)
- **Vinegar-based products without live cultures**
- **Miso stirred into hot soup** (heat reduces live culture load)

This is a conversation to have with your oncology team, not a blanket include-or-avoid decision. Phase of treatment and white count trends matter.

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## DINING OUT

- **Check restaurant health inspection scores** at your local Department of Health website
- **Order food hot and cooked to order** — avoid buffets, salad bars, and heat lamp items

- **Skip in-house Caesar dressing, hollandaise, and fresh aioli** — often made with raw eggs
- **Send back undercooked proteins** — advocate for yourself; this is a genuine risk
- **Leftovers:** refrigerate within 2 hours, reheat to 165°F, eat within 2 days
- **Takeout and delivery:** if food arrives lukewarm, reheat to 165°F before eating
- **Post-stem cell transplant:** follow your oncology team's specific guidance on restaurant dining

## TEN HABITS THAT COVER MOST OF THE RISK

Category	Key Action
<b>Hands</b>	Wash with soap for 20 seconds — before cooking, after raw protein, after trash/pets/bathroom
<b>Raw proteins</b>	Separate cutting board, lowest refrigerator shelf, separate bags at the store
<b>Deli meats</b>	Heat to steaming (165°F) before eating — kills Listeria
<b>Soft cheeses</b>	Avoid unpasteurized; choose hard aged cheeses or pasteurized options
<b>Sprouts</b>	Avoid entirely during immunocompromised periods
<b>Leftovers</b>	2-day rule; reheat to 165°F every time; freeze what you won't use in 2 days
<b>Produce</b>	Wash and scrub everything, including melons and avocados, before cutting
<b>Water</b>	Filtered (carbon block or RO) for drinking and cooking; filtered for ice
<b>Fermented foods</b>	Discuss timing with oncology team — phase and white count matter
<b>Supplements</b>	Do not start or continue without oncology team discussion

## SAFE OR RISKY? QUICK REFERENCE

Food / Situation	Status	Why It Matters
Bagged salads	<b>RISKY</b>	More handling, more surface area. Buy whole, cut your own.
Deli meats (cold)	<b>RISKY</b>	Heat to 165°F (steaming) before eating.
Buffets & salad bars	<b>RISKY</b>	Temperature control and exposure time are unpredictable.
Leftovers over 2 days	<b>RISKY</b>	2-day rule during treatment. When in doubt, throw it out.
Hard pasteurized cheese	<b>SAFER</b>	Low Listeria risk. Good swap for soft cheeses.
Sushi / raw shellfish	<b>RISKY</b>	Skip during treatment. Cross-contamination risk is high.
Pre-cut fruit (deli)	<b>RISKY</b>	Buy whole fruit and cut it yourself.
Fresh-squeezed juice	<b>RISKY</b>	Make at home or choose pasteurized commercial options.
Hot, cooked-to-order food	<b>SAFER</b>	Reheat to 165°F if it arrived lukewarm.
Unfiltered tap water	<b>RISKY</b>	Use certified carbon block or reverse osmosis filter.
Raw/unpasteurized ferments	<b>RISKY</b>	Live cultures are a concern during neutropenia. Discuss with oncology team.
Pasteurized fermented foods	<b>DISCUSS</b>	Live cultures killed by pasteurization, but confirm timing with your team.
Probiotics / supplements	<b>DISCUSS</b>	Talk to your oncology team before continuing or starting.

## THE TWO THINGS WORTH REMEMBERING

**1. Listeria and cross-contamination are the highest-priority concerns at home.** Heat deli meats, avoid soft unpasteurized cheeses, skip pre-cut produce, and keep raw proteins rigorously separated. These two risks, addressed consistently, account for the majority of real exposure.

**2. Food safety and food fear are not the same thing.** Practical, habitual risk reduction allows you to eat well, enjoy your food, and stay nourished throughout treatment. You deserve to eat well. These habits make it possible to do so safely.