

**NUTRITION TIPS
FOR
PRESSURE WOUND
MANAGEMENT**

What is a Pressure Wound?

- Skin and tissue injury as a result of prolonged pressure on the skin
- Common in bony areas such as: tailbone, buttocks, shoulder blades and feet
- Surgical wounds



How Common are Pressure Wounds in Spina Bifida?

- According to the National Spina Bifida Patient Registry, 26% of people had a history of pressure wounds and 19% had a wound in the past year
- Approximately 34% of adults with SB get a pressure wound(s) vs 26% of general population



Four Stages of Pressure Wounds

- **Stage 1:** skin is slightly different colour; no open wounds
- **Stage 2:** Skin breaks open and forms an ulcer
- **Stage 3:** Sore worsens; creates a crater
- **Stage 4:** Deep sore; can damage muscle, bone, and tendons






What Role Does Nutrition Play?






- Nutrition plays an important role in managing pressure wounds, such as speeding up the healing time
- A wound healed without optimal nutrition will be weak and is more likely to break down again

Protein for Pressure Wounds

Protein helps repair and grow body tissues, promotes growth of skin cells to heal wounds, and plays a role in rebuilding muscle, skin, and cartilage.

Protein Sources

- Beef 
- Chicken 
- Fish & seafood 
- Eggs 
- Dairy products (cottage cheese and Greek yogurt are high in protein) 

- Soy or pea milk 
- Tofu, tempeh 
- Beans and legumes 
- Nuts, seeds & nut butters 
- Protein powder 
- Protein bars
- Edamame (soybeans)

Strategies for Increasing Protein Intake

- Include protein source at all meals and snacks
- Add extra nuts and seeds to cereal, yogurt, salads
- Extra protein servings at meals (such as 3 eggs instead of 2, or a larger portion of chicken, fish, meat, tofu, lentils, etc.)
- Melt cheese into soups, scrambled eggs, casseroles
- Add milk powder or protein powder to recipes
- Drink cow milk, soy beverage, or pea milk instead of cashew, almond, or oat
- Add 1/2 cup liquid egg whites to your omelettes



How Much Protein do I need for my Pressure Wound?

- Stage II Wounds: 1.2g to 1.5g of protein per kg body weight per day
- Stage III and IV Wounds: 1.5g to 2g of protein per kg body weight per day

For example, if someone weighs 160lb (73kg) and has a stage III wound, you multiple 73 by 1.5g and 2g to get a protein range of 109.5g – 146g per day.

*Please consult a dietitian for a plan that's right for your specific needs.

Amount of Protein in Common Foods

Don't get hung up on the amount of protein needed per day. Use it as a guide for rough amounts of protein to consume throughout the day in your meals and snacks. Aiming for roughly 10–30g of protein at snacks and 20–40g at meals should be adequate.



3.5oz (100g) chicken breast
30g protein



4oz lean ground beef
30g protein



6oz (170g) can tuna
30g protein



3.5oz baked salmon
25g protein



2 eggs
12g protein



2 eggs + 1/2 cup liquid egg whites
26g protein



2 tbsp chia seeds
6g protein



1/4 cup almonds
9g protein



1/3 cup pumpkin seeds
12g protein



1 tbsp peanut butter
7g protein



1 cup cooked lentils
18g protein



1 cup (250ml) milk or soy milk
9g vs 8g protein



6oz (170g) extra firm tofu
28g protein



1 cup 0% plain Greek yogurt
25g protein



3/4 cup nonfat cottage cheese
22g protein

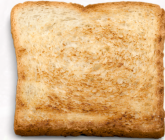
High Protein Meal & Snack Ideas



1 cup plain Greek yogurt with
1 tbsp peanut butter and fruit
32g protein



Egg omelette (2 eggs + 1/2 cup
liquid egg whites + 1oz cheese +
vegetables) with slice of toast
36g protein



Chocolate peanut butter
smoothie (3/4 cup plain Greek
yogurt, 1 cup milk, 1 fzn
banana, 1 tbsp peanut butter,
1 tbsp cocoa powder)
35g protein



3.5oz baked salmon with 1 cup
quinoa and vegetables
33g protein



3/4 cup cottage cheese
with 1/4 cup nuts and fruit
33g protein



1 tbsp peanut butter spread
on a whole wheat tortilla
and rolled up with a banana
15g protein



1 can tuna with crackers and baby
carrots
33g protein



Red lentil curry with 1/2 cup rice
22g protein



1/3 cup pumpkin seeds with
fruit and glass of milk
22g protein



1 cup whole wheat
spaghetti with 5 meatballs
and vegetables
23g protein



3.5 oz chicken breast with 1 sweet
potato and broccoli
35g protein



6oz tofu with 1/2 cup rice and
vegetables
34 g protein



1/4 cup hummus with 1 whole wheat
pita and cherry tomatoes
12g protein

Extra Calories for Pressure Wounds

When you have a pressure wound, your body loses extra fluids and nutrients from the wound(s) so it's critical to increase your energy/caloric intake to account for these losses and promote healing. Reducing caloric intake can impair wound healing.

How Many Calories Should I Eat for my Wound?

- 30kcal to 40kcal per kg of body weight per day
- Caloric intake should be greater than when you do not have a wound

Tips for Increasing Energy Intake

- Add an extra snack
- Spread food intake evenly throughout the day (3 meals + 2-3 snacks) - eat every 2-3 hrs
- Add extra portion of protein, carbs or healthy fats with meals and snacks
- Limit liquids at meal times
- Add nut butter, avocado, protein powder, or cream to smoothies
- Add avocados and nuts to sandwiches or salads
- Dip fruit in nut butter
- Drink Nutrition supplements (Boost, Ensure, or Carnation breakfast powder)
- Add cheese to salads, soups, pasta
- Add 1 tbsp olive oil to meals
- Dip crackers in hummus or guacamole
- Use full fat dairy products



Fluids for Pressure Wounds

Fluids keep wound sites hydrated, transport nutrients, and help maintain skin integrity and healing. Plus, fluids tend to leak out of wounds so it is critical to replace those losses.

***Caution if on fluid restricted diet for a heart or kidney condition. Ask your healthcare professional what's right for you.

How Much Fluid Should I Drink?

The general recommendation is **2-3 liters per day** (8-12 cups or 64oz) but it also depends on factors such as wound stage, activity levels and climate. Depending on your wound, you may need an additional 1/2 - 1L of fluid. Spread your fluid intake evenly throughout the day.

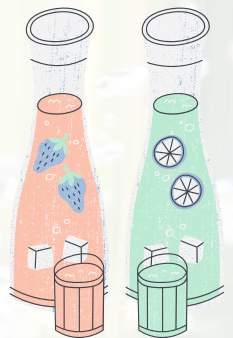
What Counts as Fluid?

- Water
- Flavored seltzer
- Tea
- Milk or nondairy substitutes
- Coffee (not too much)
- Juice



Tips for Increasing Fluid Intake

- Add frozen or fresh fruit, vegetables, herbs, or flavored water enhancers to your water to improve taste
- Keep a reusable water bottle with you throughout the day as a reminder to drink. Refill it when you run out
- Make soups more often as this counts as fluid
- Pair it with another habit, for example, drink a glass of water with your afternoon snack, after you brush your teeth, or after a workout
- Set an alarm every hour to drink



Vitamins & Minerals for Pressure Wounds

Vitamins reduce inflammation, fight infections, and support tissue repair of wounds.

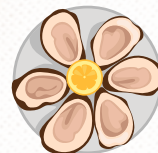
Do I Need to Take any Supplements for my Wound?

The research is unclear but if you have a known nutrient deficiency or your diet is low in certain vitamins, then a supplement is recommended for wound healing. Low levels of vitamin C, A, E, zinc, selenium, magnesium and iron can impair wound healing.



How do I get enough Vitamins to Heal my Pressure Wounds?

- Eat lots of fruits and vegetables (if you don't eat many then consider a multivitamin)
- Eat foods rich in vitamins A, C, and zinc
- **Vitamin A:** milk, mango, sweet potato, pumpkin, carrots, cheese, eggs, leafy greens
- **Vitamin C:** Kiwi, broccoli, cantaloupe, citrus fruits, strawberries, bell peppers
- **Zinc:** Meat, liver, oysters, eggs, milk, whole wheat products



This information does not constitute medical advice for any individual. As specific cases may vary from the general information presented here, we advise readers to consult a qualified health care professional on an individual basis.

This resource was created by Jackie Silver MHsc, RD
<https://jackiesilvernutrition.com/>
jackie@jackiesilvernutrition.com



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