

Living with Lymphoma: Fatigue and Exercise

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Goals of this session

- Understand differences between “fatigue” vs “cancer-related fatigue”
- Discuss formal/informal tools to manage cancer-related fatigue
- Review the benefits of physical activity in lymphoma in addition to fatigue management
- Suggestions to get started/increase physical activity

What is fatigue?

- Subjective feeling
- Fatigue can be used to describe
 - difficulty or inability to initiate activity (subjective sense of weakness)
 - reduced capacity to maintain activity (easily tired)
 - difficulty with concentration, memory, and emotional stability (mental fatigue)
 - sleepiness or an uncontrollable need to sleep

Why are we talking about fatigue?

- Commonly experienced cancer symptom
- Most distressing symptom of cancer treatment, even more than pain and nausea
 - 70-100 % of patients during active treatment
 - 30% of post-treatment survivors, up to months and years
- Profoundly affects quality of life (QOL) of both patients and families, including physical, psychosocial and economic/occupational aspects

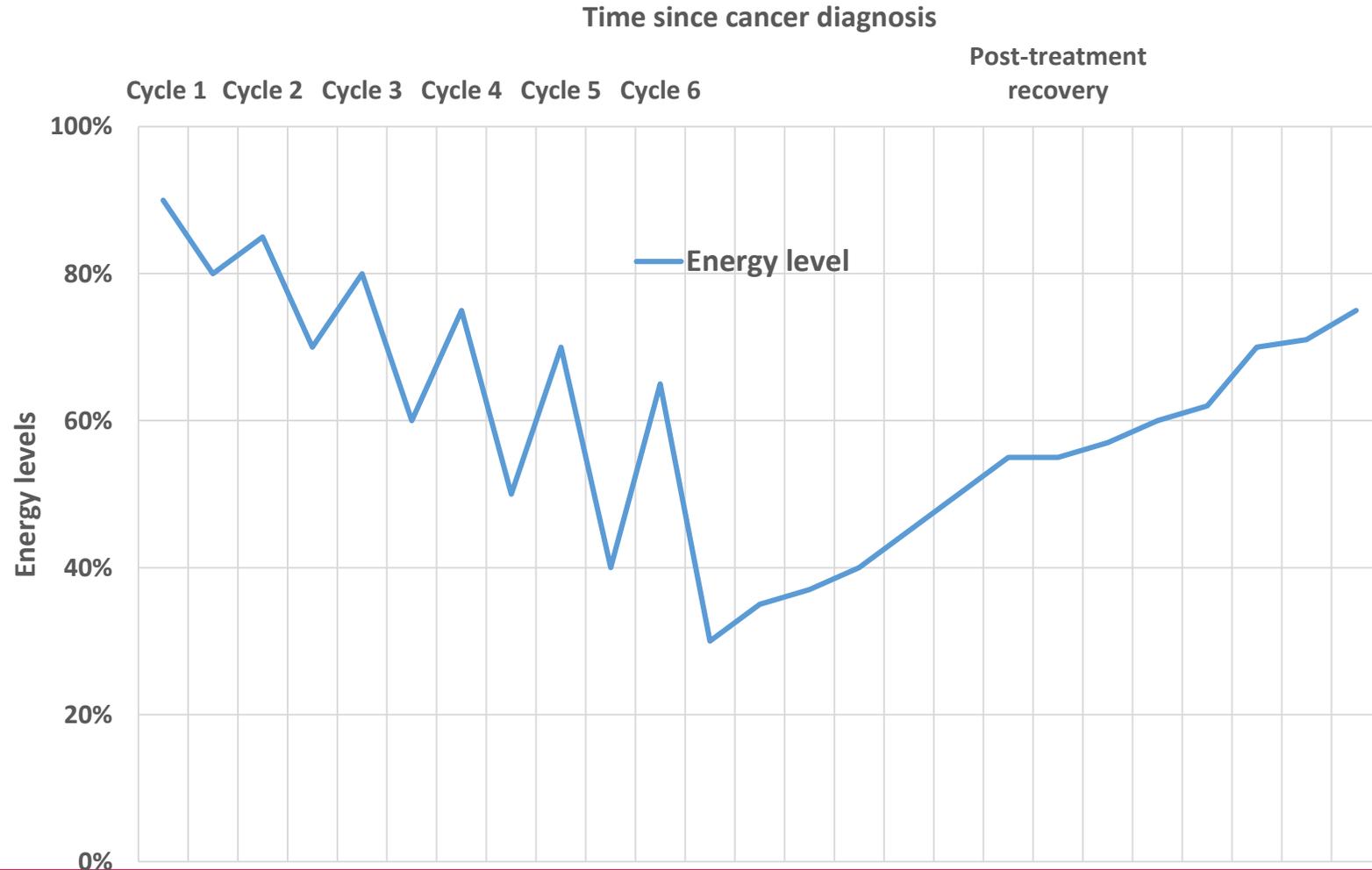
What is cancer-related fatigue?

- A distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer and/or cancer treatment that is not proportional to recent activity and interferes with usual functioning

Differs from fatigue in everyday life
which is usually temporary and relieved by rest

Patterns of cancer-related fatigue

- Cyclic during chemotherapy
- Worse towards the end of treatment and gradually improves thereafter
- Most prevalent during active cancer therapy but may persist much longer in 1/3rd of cancer survivors

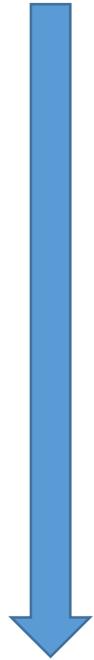


What contributes to cancer-related fatigue?

- Medical issues:
 - Cancer therapy
 - Tumor progression
 - Unrelieved pain
 - Low blood counts e.g. anemia
 - Other medical conditions- cardiac, pulmonary, renal, arthritis, neuropathy
 - Medication side-effects
- Metabolic/Nutritional/hormonal issues
- Loss of muscle mass/deconditioning
- Depressed mood, emotional distress and sleep disturbance

How do we treat cancer-related fatigue?

Most evidence



Least evidence

- Physical activity
- Psychosocial interventions
 - Cognitive behavioral therapy
 - Psychoeducational therapy
- Mind-body interventions
 - Mindfulness-based approaches
 - Yoga
 - Acupuncture
 - Touch therapy, massage, music therapy, relaxation, reiki, qigong
- Medications

Let's Move!

Calisthenics: Seated Marches

- Sit on the front of the chair with your back straight and your feet flat on the ground. Slowly lift your knee towards your chest. Once you are unable to lift your leg any further, hold for 2 seconds. Slowly return your foot to the ground. Work up to doing 15 on each leg, repeating the exercise twice.



Psychosocial interventions

- Reframing negative thinking patterns that influence the perceptions of problems, and subsequently, behaviors
- Energy conservation and activity management (See handout)
 - Prioritize and pace activities
 - Delegate, postpone non-essential activities
 - Daily log to identify peak energy periods and effectiveness of interventions
 - Family member presence may distract from sense of fatigue
 - Structured support groups
 - Individual counseling/formal CBT

See Handout for

- Energy conservation methods
- Practical tips to conserve energy
- Good sleep hygiene
- Cognitive behavioral interventions

Ways to conserve energy

Planning and organizing

Alternate tasks that take lots of energy with those that take less.

Plan activities daily as well as weekly to better alternate tasks.

Delegate as much as possible. It helps you get tasks done and it makes those who want to help feel useful.

Eliminate steps or tasks that are not essential by combining chores or errands.

Arrange your household so that most activities can be done on one floor.

Organize ahead of time so you don't have to rush.

Pacing

Balance activities so you alternate resting and doing.

Stop to rest before you get tired even if it means stopping in the middle of a task.

Try to avoid spurts of activity; this can drain energy.

Pace activities on good days as well as bad days.

Develop a routine to prevent overdoing.

Positioning

Sit to do things whenever possible.

Use assistive devices: walkers, scooters, canes, handrails, crutches, grab bars. Assistive devices and adaptive equipment can save energy by allowing you to do things without having to bend or reach.

Avoid heavy lifting (such as children, pots and pans, and laundry).

Use carts or wagons to move things from room to room and place to place.

Wear a fanny pack, carpenter's belt, or jacket or sweater with pockets to carry things.

Prioritizing

Focus on things you enjoy doing.

Be realistic with yourself.

Physical activity

Any movement of the body that uses energy

versus

Exercise

Any planned, structured, repetitive & intentional movement, performed to improve or maintain one's physical health



Recommended Physical activity:

Updated exercise guidelines for cancer survivors (Published October 16, 2019):

**Moderate-intensity aerobic activity
at least 3 times per week, for at least 30 min**
+
**Resistance training at least 2 times per week,
using at least 2 sets of 8 - 15 repetitions**

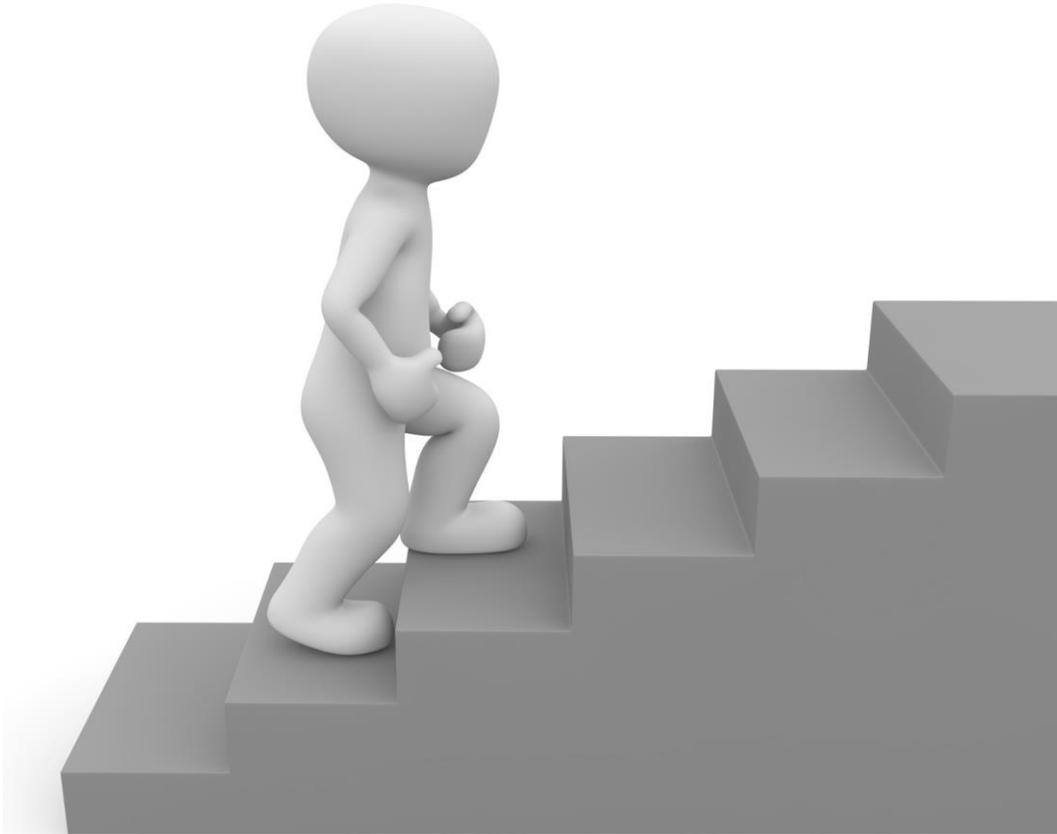
Recommended Physical activity:

Hematologic cancer survivors meeting guidelines:

~10-22% meet aerobic (measured)³;

~10% meet strength (self-reported)⁴

Benefits of regular exercise

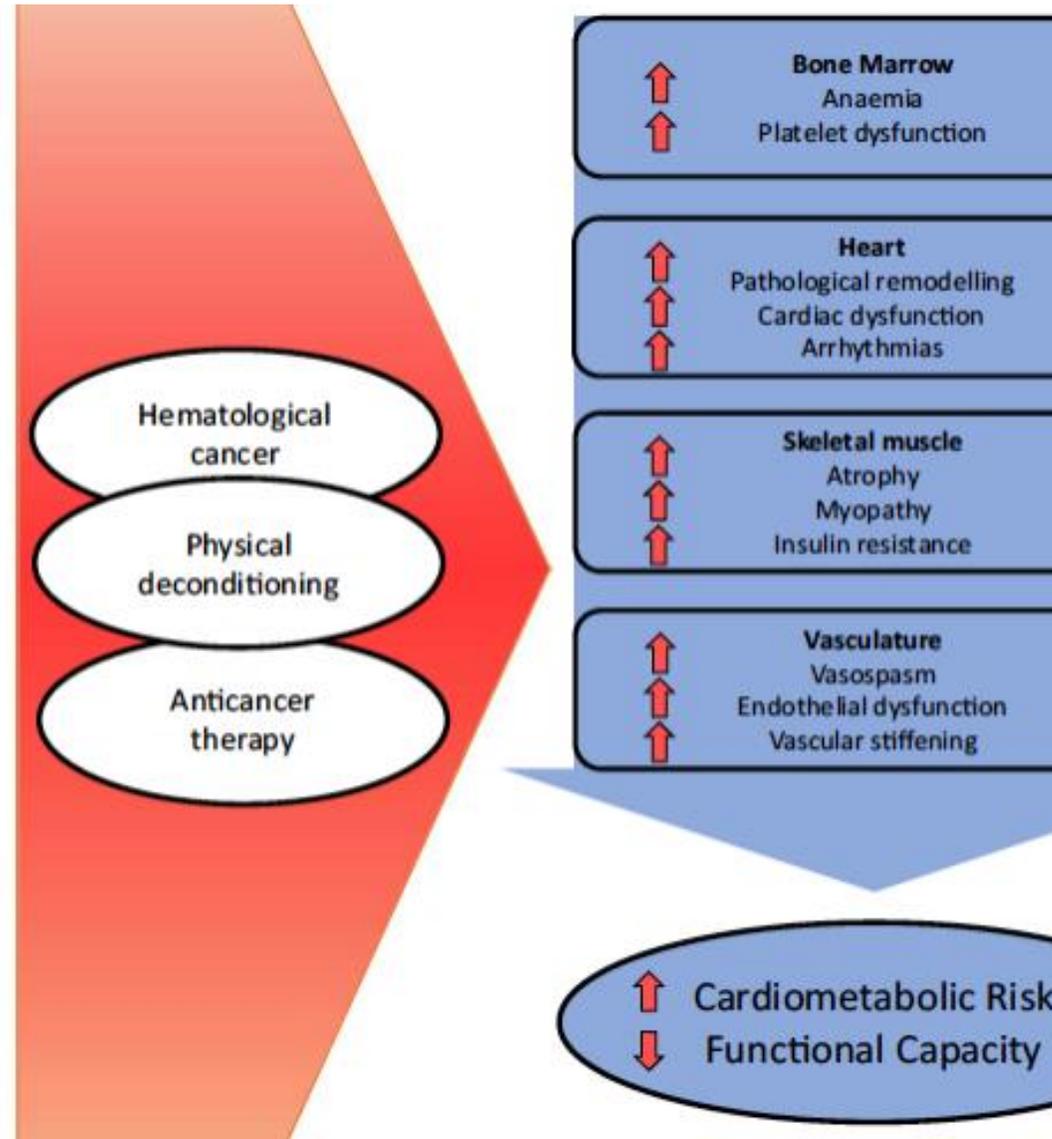


- Reduces fatigue
- Increases physical capacity
- Improves strength
- Weight control
- Reduces risk of cardiac issues
- Reduces risk of chronic diseases & conditions
- Improves mood, mental health, sleep & overall cognitive functioning
- Improves QOL & survival

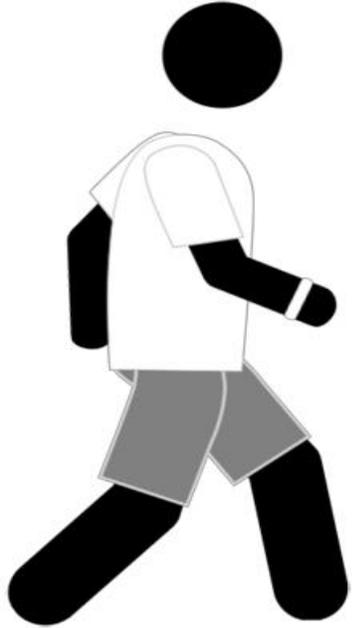
Benefits

Anticancer Therapy

- Chemotherapy
- Radiation
- Immuno-therapy
- Targeted therapies



Benefits



Take away message:

1. High levels of overall physical activity are associated with enhanced heart, blood and muscle health
2. **Breaking up prolonged sitting time** by standing or light- intensity exercise (e.g. walking) can provide beneficial effects

Move More, Sit Less!

Let's Move!

Calisthenics: Calf Raises

- Stand behind your chair, using the back of the chair for balance. Begin in a normal standing position with your feet flat on the ground, about shoulder width apart. Slowly roll up on the ball of your feet until you are standing on your toes. Hold this position for 2 seconds, and then slowly return to a normal standing position with your feet flat on the ground. Work up to doing this exercise 15 times in a row, repeating the exercise twice.



Exercise before treatments

GOAL: Build physical fitness & strength to prepare your body for treatments.

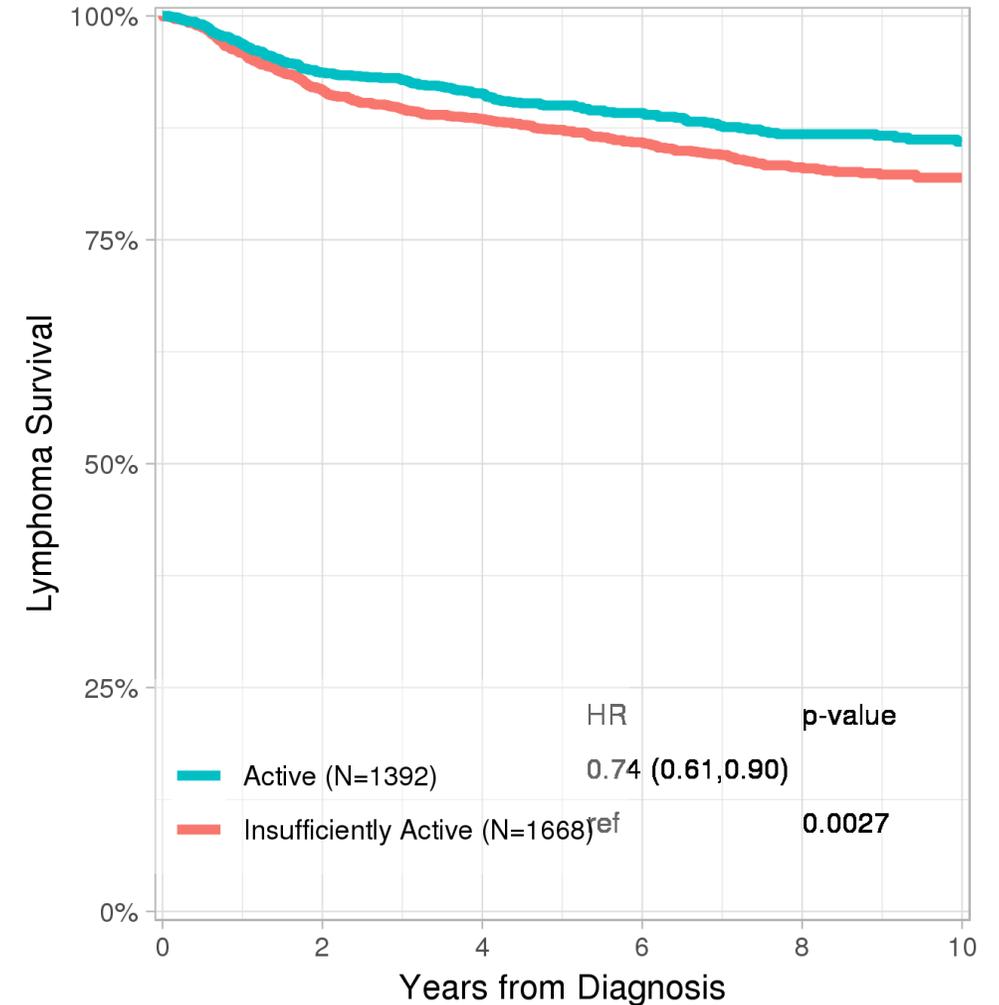
HOW MUCH: Build up to meeting the physical activity recommendations –
150 mins moderate-to-vigorous intensity aerobic exercise and 2 x strength sessions / week.



Exercise before treatments

Patients with higher baseline physical activity before lymphoma diagnosis live longer after lymphoma diagnosis

LSS from Diagnosis
by Baseline ACS Physical Activity Guidelines



Safety: Exercise precautions

Exercise is safe for the **majority** of people with cancer.

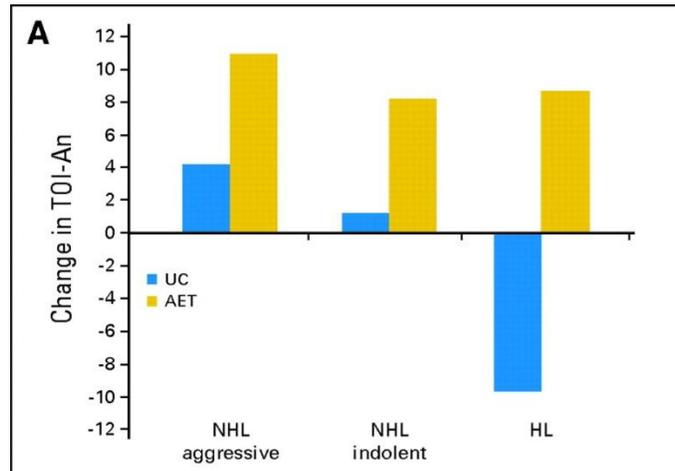
You may need to speak to a qualified exercise professional prior to starting exercise, **or your doctor**, if you have:

- Low platelets, <20,000/dL - avoid contact sports
- Low neutrophils, <1500/dL - avoid public gyms & pools
- Low hemoglobin, <8g/dL – doctors clearance before exercise
- Short of breath **at rest** (speak to doctor before exercise)
- Low SpO₂, <88% (doctors clearance before exercise), 89-94% monitor
- Bone metastases, lytic lesions: exercise as tolerated, caution required
- Other comorbidities that increase risk of heart disease

Exercise during chemotherapy

- Exercise is SAFE
- May improve chemo tolerance
- Reduces severity of side effects of chemo
- Reduces fatigue
- Maintains function

Exercise during chemotherapy



 Aerobic exercise  Usual care (no exercise)

A: Physical Functioning

- Improved in exercise groups

B: Fitness (VO₂Peak)

- Improved in exercise groups

References: 1. Courneya et al. JCO, 2009;25(28).

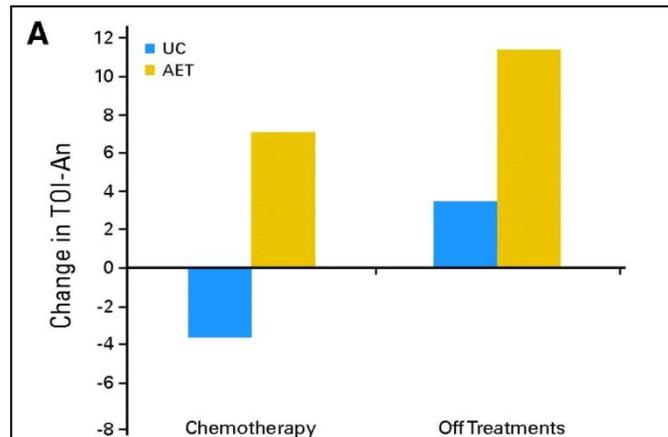
Exercise during chemotherapy

What did they do in the study?

- 12 weeks of aerobic exercise (cycling indoors)
- 3 times per week
- 15-20 mins (start) to 40-45 mins per session, adding 5-mins per week
- Intensity: moderate (60 – 75%)
- For final 6 weeks, once a week one session was changed to an “interval” session to help improve fitness



Exercise during chemotherapy



 Aerobic exercise  Usual care (no exercise)

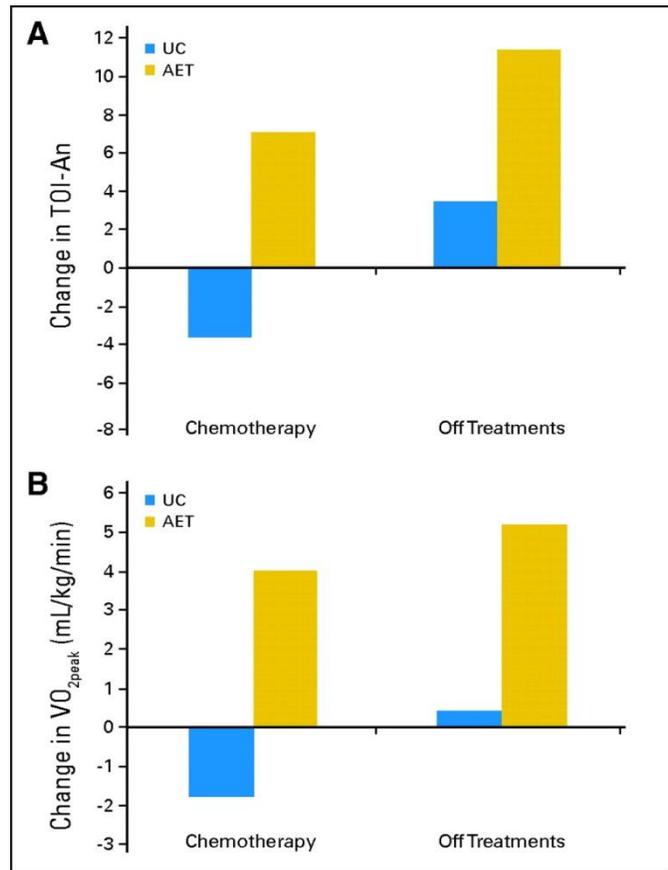
A: Physical Functioning

- Improved in exercise groups **during and after chemo** Vs decline

B: Fitness (VO₂Peak)

- Improved in exercise groups **during and after chemo**

Exercise during chemotherapy



 Aerobic exercise  Usual care (no exercise)

Other important findings:

- Exercise **did not** interfere with chemo completion rate or treatment response
- At 6-months post-treatment, exercise group maintained improvements

POSITIVE impact on happiness, depression, physical function, fitness, general health & lean mass.

Exercise during treatments

Exercise (2x/week):

Aerobic exercise

(10-30 min)

+

Strength training

(4 exercises to max)

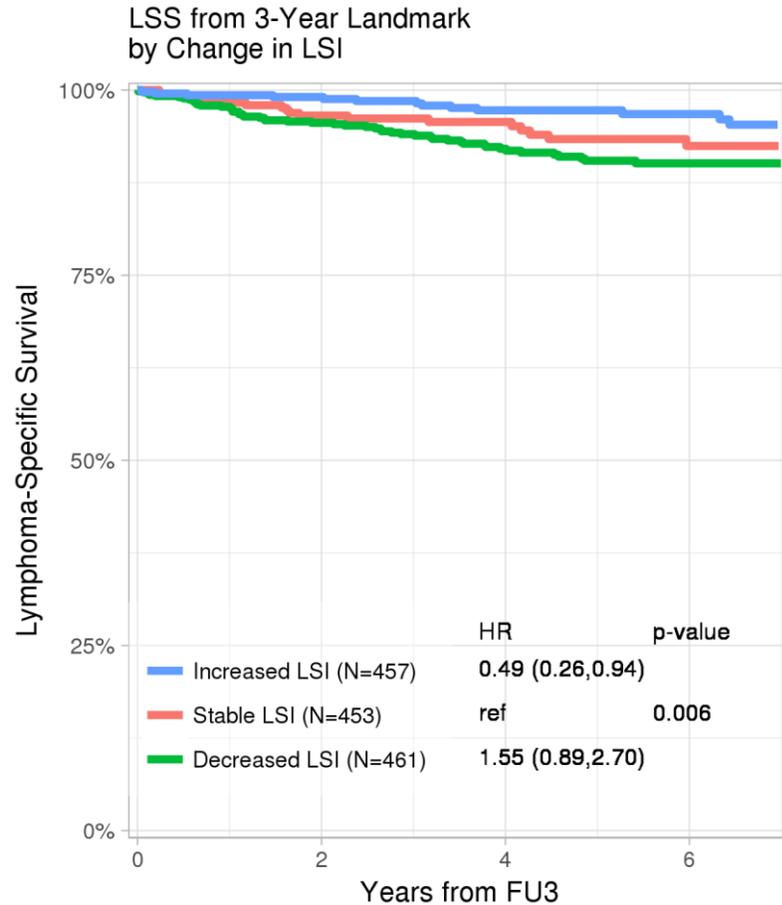
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Balance training

- Improved quality of life
- Reduced side effects like peripheral neuropathy (hands/feet)
- Improved balance, mobility and physical performance level

The exercise group improved, the control group declined.

Exercise after treatment



INCREASING physical activity AFTER lymphoma diagnosis is associated with living longer

Exercise after treatment

Barriers:

1. Fatigue
2. Frustration

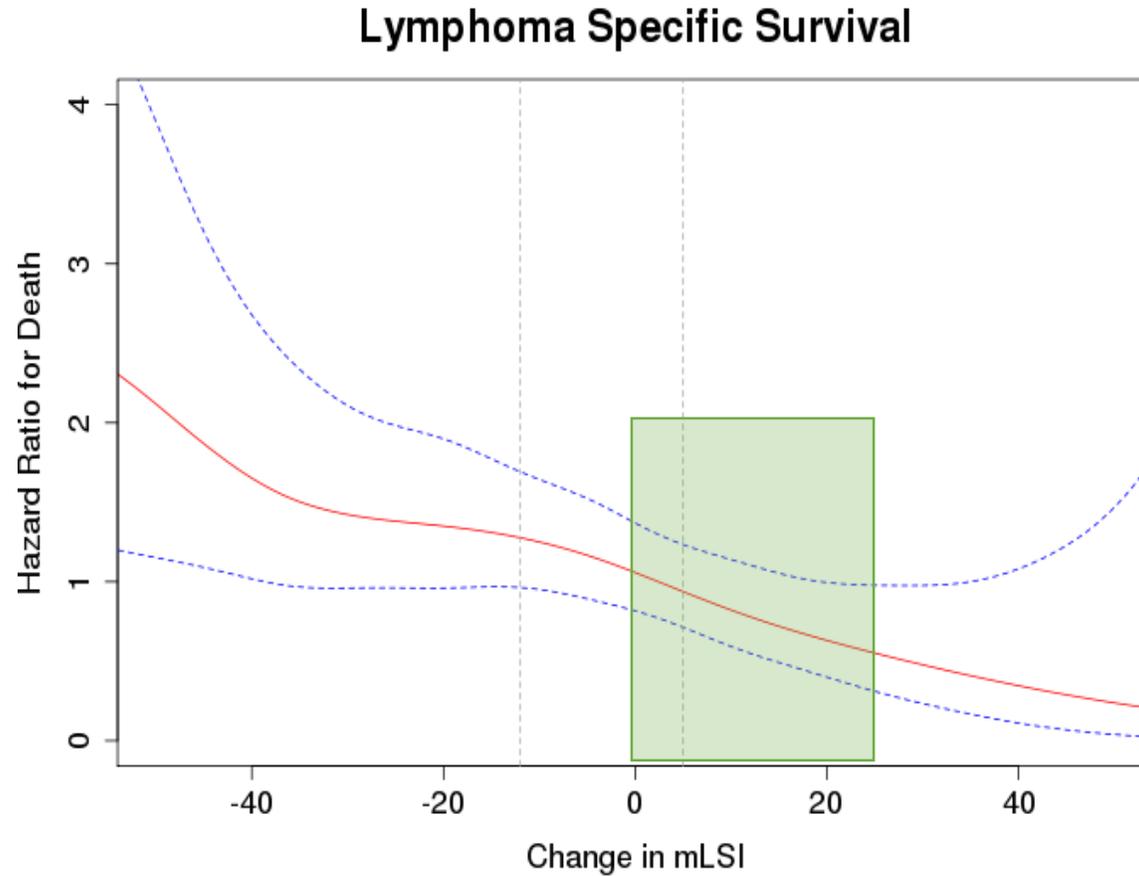
What can help?

- Support from others
- Tracking your data (wearable, diary)
- Individually tailored program
- Creating community



How much should I increase exercise?

Any improvement in physical activity is good!



Let's Move!

Calisthenics: Sit-to-Stand

- Begin in a seated position. Slowly stand up to a normal standing position; try to do this without using your hands for assistance or balance. Return to the seated position in a slow, controlled motion. Work up to doing this exercise 15 times in a row, repeating the exercise twice.



Physical activity and Fatigue

- Historically, cancer patients, particularly those undergoing active treatment, are often advised to rest and downregulate their daily activities

- Inactivity -> muscular wasting
- Prolonged rest -> further loss of physical strength and endurance

Fatigue management



- Exercise has been shown to be **more effective** at reducing cancer-related fatigue than medications^{1,2}

TIPS:

1. Start where you are at

2. Consistency is KEY

3. Doing nothing → worse fatigue

Recommended Physical activity:

Updated guidelines exercise in cancer (Published October 16, 2019):

**Moderate-intensity aerobic activity
at least 3 times per week, for at least 30 min**
+
Resistance training at least 2 times per week,
using at least 2 sets of 8 - 15 repetitions

Getting started

1. Safety – Do you need to check with your doctor?
2. Start SLOWLY and build SLOWLY
3. Start where you are at
4. If you are unsure how to get started, get a consultation with a professional

Getting Started with Exercise!

Types of Exercise: Choose an exercise that works for you!

- Walking indoors/outdoors
 - Stationary or Recumbent Bike
 - Recumbent stepper/NuStep
 - Elliptical trainer
 - Swimming
-
- **Intensity:** Moderate/Medium or “Somewhat Hard” Can talk but can’t sing
 - **Frequency:** 2-3 days/week
 - Start with 2-3 days per week, working your way up to 5 days per week as you are able to do more exercise!

Example of aerobic exercise session:

- 3 minutes of leg stretches
- 5 minutes of “easy” warm-up
- Start with 5-10 minutes moderate intensity (“somewhat hard”), adding 1-5 minutes as you are feeling well/able, with goal being 30-45 minutes continuously
- 5 minute “easy” cool-down
- 3 minutes of leg stretches

Strength/weight training

- 2 times/week
- 8-15 repetitions each exercise
- 1-2 sets
- Major muscle groups: biceps, triceps, core, hamstrings, quadriceps
- ***Calisthenics***: strength training without additional weights (see handout)

Staying motivated



- Goal setting
- Support
- Tracking activity

*Supervised exercise
and group classes
can be a
GREAT way to
stay motivated!*

Local Resources

- www.exerciseismedicine.org/movethruca
- Local gyms
- Local support groups
- Friends & family
- Ask your healthcare team



the 

LIVESTRONG[®] AT THE YMCA

LIVESTRONG[®] at the YMCA is a small-group fitness program for adult cancer survivors.

THIS PROGRAM INCLUDES:

- Free 12-week YMCA Membership for survivor and primary caregiver
- Two 75-minute classes per week
- A combination of individual instruction and group activities

To learn more about LIVESTRONG[®] at the YMCA, contact: livestrong@ymcamn.org
(W) ymcamn.org/Rochester | (P) 507 287 2260

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WALK WITH LRF



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RIDE WITH LRF

Find motivation!

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Handout

Living with Lymphoma Session: Fatigue and Exercise

Name: _____ Date: _____



Aerobic Activity 3 or more days/week

Intensity: Light (casual walk) Moderate (brisk walk) Vigorous (like jogging)

Time (minutes/day): Build up to 30 minutes/day

Type: Walk Run Bike Swim/Water Exercise Other _____

Steps/day: 2,500 5,000 7,000 9,000 or more Other _____

What about aerobic activity?

- Moderate activity is at a pace where you can talk but cannot “sing.” Examples: *brisk walking, light biking, water exercise and dancing.*
- Vigorous activity is at a pace where you have trouble talking and may be out of breath. Examples: *jogging, tennis and fast bicycling.*
- While the recommendation is to build up to 30 min/day, at least 3 days/week, you can exercise for any length of time. For example, you might walk:
 - 5 minutes here, 10 minutes there
 - 15 minutes daily
 - Just work your way up to 30 minutes 3 days/week
- Gradually build up to a daily step count of 7,000-9,000 steps/day.



Muscle Strength Training 2 days/week

What about strength training?

- You don't have to go to a gym. You can use elastic bands, do body weight exercises (kitchen counter push-ups, chair sit-to-stands) or lift dumbbells. Heavy work around your home also builds strength.
- Strengthen your legs, back, chest and arms. To start, try 10-15 repetitions using light effort. Build up to medium or hard effort for 8-12 repetitions. Repeat 2-4 times, 2-3 days/week.
- Give yourself a rest day between each strength training session.

Notes (local programming, specific risks or instructions):

See www.exerciseismedicine.org/movethruca for a registry of local programs.

Referrer's Signature: _____

How will you get started **this week?**

Being Active When You Have Cancer



Do you want to feel better, sleep better and move better? Being active during and after a cancer diagnosis is an important way to reduce fatigue, increase strength and help ease depression. Regular physical activity, including aerobic activity and strength training, can help you get through your treatments and decrease treatment side effects. In addition, stretching can help restore flexibility in joints that have lost range of motion due to surgery or radiation.

Research supports the following benefits of physical activity for cancer survivors. Being active:

- Helps reduce fatigue, the most common side effect of cancer treatment
- Improves symptoms of depression and anxiety and helps you sleep better
- Helps maintain or improve physical function (your ability to get things done in your life)
- Improves your immune system, appetite, muscle strength, range of motion and simply helps your body and brain work better
- Does *not* increase your risk of breast cancer-related lymphedema and may help with these symptoms;
- Decreases your risk of cancer coming back.

Start where you are. Use what you have. Do what you can.

Getting Started

Keep It Simple

Avoid inactivity! If you get moving as soon as you are diagnosed, you'll feel better. Walk to the mailbox. Walk the dog. Dance in the kitchen. Do laps around the dining room table. Find opportunities to move throughout your day.



Talk with Your Doctor

Talk to your health care provider before you start a new exercise program. Are there any activity limitations due to medications, surgeries or treatment?



Expert Support

Ask if your hospital or local wellness center has a structured cancer exercise program. ACSM Certified Cancer Exercise Trainers (CETs), some physical therapists or members of the health care team can help you design your activity plan.



Build a Plan

Keep a daily log of your exercise, fatigue (0-10 scale), medications and treatments. This will help you learn what works best. Find an activity buddy from home, work or a cancer support group to stay motivated.



Aerobic Activity



Aerobic activity increases your heart rate and breathing. Build up to doing 150 minutes/week of moderate-intensity activity (like walking, light cycling, yoga, tai chi or water exercise), 75 minutes/week of vigorous activity (like brisk walking, singles tennis or hiking hills) or a combination of both. You'll improve the way your body stores and uses energy, as well as your stamina and heart health.

What?

Any rhythmic, continuous activity!



How often?

3-5 days/week



How hard?

Fairly light to somewhat hard



How much?

Start w/ a few minutes. Gradually build up to 30-60 total minutes over the day.



Remember: Fit in 5 or 10 minutes here and there. Or go for 20-30 minutes. During treatment, several short sessions may work better than one long one. Be active however you can.

Aerobic Activity Tips and Cautions

- Some cancer medications (chemo, etc.) and treatments (surgery and radiation) cause side effects. Check with your health care provider for specific precautions. For example:
- If you have peripheral neuropathy, take care in walking on treadmills — use handrails.
 - If you're at increased risk of infection or irritated skin, avoid swimming pools.
 - Avoid exercise if you have an active infection (fever); just after surgery, have extreme fatigue or difficulty walking
 - Some treatments are associated with damage to your heart. Ask your doctor if you've received any heart-damaging treatment. Get a heart health check prior to starting exercise.

Strength Training



Strength training is important for people with cancer because it builds muscle. Muscle tissue plays a big role in balance, fatigue and quality of life. Muscle may also be important to processing chemotherapy drugs. You don't have to be a bodybuilder! Plus, strength training can make daily activities like lifting laundry baskets or yardwork easier and safer.

What?

Hand weights, resistance bands, weight machines or your own body (for example, kitchen counter push-ups chair squats).



How often?

2-3 days/week
* Rest day in between!



How hard?

Start with light effort. Build up to medium or hard effort.



How much?

10-15 repetitions to start (for each major muscle group). Build up to 8-12 reps of challenging effort.



Remember: If you need it, get help from a certified exercise professional. They can teach you the right way to do exercises and how to breathe properly. If you have lymphedema, you may benefit from wearing a compression sleeve during strength training.

Other Types of Physical Activity



Aerobic activity and strength training are at the heart of a program for those with cancer. But you may enjoy and benefit from these other options.

Flexibility

Gently stretch your muscles 2-7 days/week to the point of feeling tightness. Hold for 10-30 seconds. Make sure to stretch specific areas recommended by your health care provider.



Take More Steps

Simply take more steps! Use a smart phone or activity tracker to measure your progress and stay motivated. Slowly build up to 7,000-9,000 steps/day.



Just for Fun

Find ways of being active that are just plain fun. Dance to your favorite song. Try yoga or tai chi. Play with your kids or grandkids. Find what makes you smile and do it often.



Balance

Exercises may include standing on one foot, walking on a line or using a balance board. Train in an uncluttered area and use a chair or wall for support if needed.



To stay safe and injury free:

- Start with light to medium effort. If you experience extreme fatigue (typically 2-3 days after chemo), still do light activity. Just cut back exercise time on those days.
- Gradually increase your pace and time spent being active. Start low and go slow!
- Warm up and cool down at an easy pace before and after exercise.

More Help

To learn more about being active with cancer, check out these resources:

- American Cancer Society: www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active/physical-activity-and-the-cancer-patient.html
 - National Comprehensive Cancer Network: www.nccn.org/patients/resources/life_with_cancer/exercise.aspx
- Go to www.acsm.org/get-stay-certified/find-a-pro to find an **ACSM certified exercise professional** near you.

How will I get started **this week?** _____

Sit Less.

Too much sitting saps your energy, makes your joints stiff, and affects your overall health. You can change that! Get up and simply move more throughout the day, even if you go to the gym... and especially if you don't. There are many ways to reduce your "tush time."

Which will you do this week? (☑ boxes)

At Work:



- When sitting at your desk or computer, get up every 30 minutes or so and stretch. Walk down the hallway. A smart phone Stand Up Reminder app can help.
- On the phone? Stand or walk around.
- Instead of calling or instant messaging your co-workers, get up and go to their desk for a chat.
- Try "walking meetings" when you don't need a pen and paper.

At Home & Elsewhere:



- When watching TV, get up during every commercial and do an active chore. For example, empty the dishwasher, throw some clothes in the laundry, or take out the garbage. Feel productive after just one show!
- Use stairs whenever you can.
- Reduce time in front of the TV, computer and on video games (unless you're moving). Try other fun activities or finish home projects instead.
- If you can't walk or stand, try seated knee lifts, kicks, foot slides, punches or arm circles.

While Commuting:



- If you take the bus or subway, stand and allow others to have a seat. Feel good about yourself!
- Don't fight for the closest parking spot. Park farther away and take a few more steps.
- Get off the bus one stop early and walk the rest of the way. Wear supportive and comfortable shoes so this is easy to do.

What I will do **TODAY** to sit less: _____

Move More. ▶

Move More.

Do you want to feel better, move better and sleep better? Find opportunities to be active throughout your day. Every minute counts.

Walk to the mailbox • Rake some leaves • Get on a bike • Dance!
Choose what works for you – and what's fun!

Try to do at least 150 minutes of moderate-intensity physical activity every week. Fit in 2, 5, 10 or 20 minutes here and there. Be active however and wherever you can! It all adds up to better health.

Walking is simple, inexpensive and may be a great way to start. Which of these will you do in the next two weeks? (☑ boxes)

- Roll out of bed and take a 20-minute walk before the day gets going and you talk yourself out of it.



- Take a walk with your family every night after dinner.



- Meet a friend at your local shopping mall for an early morning walk. Malls often open early to support local walkers.

- Walk or ride a bike with your child to school, and you'll both get the benefits.

- Volunteer to walk your dog every day. Don't have a dog? Walk your neighbor's pet.



- Go for a 10- to 15-minute walk at lunchtime and bring a friend.

- Try a smart phone walking app or count your steps with an activity tracker. Gradually build up to 7,000-9,000 steps/day.

- Start a neighborhood walking group – with at least two other neighbors. Swap child care if needed.



- Join a local fitness program to get guidance and motivation. My local fitness facility or program: _____



- Walk or ride to work or the store 1-2 times/week. Try an e-bike: they're easier, faster and fun!

- Find beautiful places in your community to walk or bike: local parks, trails, streets with trees or interesting buildings. Become an explorer.

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What I will do **TOMORROW** to become more active: _____

Start where you are. Use what you have. Do what you can.

Ways to conserve energy

Planning and organizing

Alternate tasks that take lots of energy with those that take less.

Plan activities daily as well as weekly to better alternate tasks.

Delegate as much as possible. It helps you get tasks done and it makes those who want to help feel useful.

Eliminate steps or tasks that are not essential by combining chores or errands.

Arrange your household so that most activities can be done on one floor.

Organize ahead of time so you don't have to rush.

Pacing

Balance activities so you alternate resting and doing.

Stop to rest before you get tired even if it means stopping in the middle of a task.

Try to avoid spurts of activity; this can drain energy.

Pace activities on good days as well as bad days.

Develop a routine to prevent overdoing.

Positioning

Sit to do things whenever possible.

Use assistive devices: walkers, scooters, canes, handrails, crutches, grab bars. Assistive devices and adaptive equipment can save energy by allowing you to do things without having to bend or reach.

Avoid heavy lifting (such as children, pots and pans, and laundry).

Use carts or wagons to move things from room to room and place to place.

Wear a fanny pack, carpenter's belt, or jacket or sweater with pockets to carry things.

Prioritizing

Focus on things you enjoy doing.

Be realistic with yourself.

When you're too tired to eat

When just the thought of cooking or eating a meal makes you tired, try these hints to save energy:

Let others help prepare or bring food. Family or friends usually like to help!

Shop at less busy times.

Meal preparation

Assemble all ingredients before starting.

Use mixes or pre-packaged foods.

Use cookware you can serve from.

Use small, lightweight appliances and labor-saving devices.

Buy utensils that fit comfortably in the hand.

Store frequently used items at chest level to minimize bending and reaching.

Line ovens and drip pans with foil for easier cleanup.

Let dishes air dry or use a dishwasher.

Childcare

Plan activities or outings at a place that will allow you to sit or lie down.

Take advantage of daycare programs.

Teach children to make a game out of household chores.

Work

Plan work around your best times of the day.

Organize work centers so that equipment is within easy reach.

Create shortcuts.

Take rest breaks.

Work part-time if possible.

Leisure

Plan activities that allow you to sit or lie down.

Plan social events at peak energy times.

Ways to conserve energy

Basic activities

Bathing and grooming

- Wash your hair in the shower rather than over a sink.
- Use a terry robe instead of towels to dry off.
- Use organizers to keep things within reach.
- Use a chair in the shower or tub.
- Use a long-handled sponge or brush to reach your back and feet.
- Rest elbows on counter or dressing table to avoid leaning unsupported.
- Use long-handled brushes or combs to avoid holding your arms overhead.
- Use liquid soap or soap on a rope.
- Use an elevated toilet seat.

Dressing

- Wear loose clothes that are easier to put on and take off.
- Bring your foot to the opposite knee, from a seated position, to put on socks and shoes so you won't have to lean over.
- Wear slip-on shoes or shoes with Velcro closures or elastic shoelaces.
- Use a long-handled shoe horn or sock aid.
- Fasten your bra in front and then turn it around.
- Wear clothes that button in front rather than pullovers or clothes that button in the back.
- Use a reacher or dressing stick to help with zippers in back.

Advanced activities

Housework

- Spread tasks out over the week or month.
- Hire help.
- Use long-handled dusters, mops, dust pans.
- Use automatic washer and dryer if possible.
- Use lightweight iron.

Shopping

- Make a list.
- Organize your shopping list by store aisle.
- Request assistance in stores.
- Have groceries delivered if possible.
- Use canned, frozen, or other prepared foods, or try ordering out.
- On days when you feel well, cook extra food and freeze in small containers. Reheat frozen food on days when you're tired.
- Ask your doctor, nurse, or social worker about community resources that deliver prepared meals.
- Eat small, frequent meals rather than several large meals each day.
- Have snack foods readily available.
- If you're really exhausted, put some favorite foods and beverages in a cooler with ice next to you as you rest.
- Make quick meals with a microwave or blender.

Good sleep hygiene

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| During the day |
| Exercise regularly. Even a 20-minute walk during the day can help you relax. Don't exercise in the evening. |
| Limit naps if you can. If you must nap, limit your nap to 30 minutes. |
| Before bedtime |
| Avoid alcohol, caffeine, chocolate, and nicotine in the late afternoon and evening. |
| Limit liquids in the evening before going to bed. |
| Turn off the TV one hour before bedtime. Listen to quiet music or take a warm bath. |
| If you worry or "can't turn your brain off" when you try to sleep, make a list of things you need to do before you go to bed and then stop thinking about them. |
| At bedtime |
| Go to bed and get up at the same time every day, even on weekends. |
| A bedtime snack of warm milk, turkey, or a banana may make you sleepy. |
| Use your bedroom only for sleep and sex, no reading, watching TV, or working. |
| If you are a "clock watcher," turn your clock so that you cannot see its face. |
| To fall asleep, lie in the position that you normally find yourself in when you wake up. |
| Go to bed at the same time with your spouse. |
| If you can't fall asleep |
| If you haven't fallen asleep in 15 minutes, go to another room. Listen to quiet music. Avoid things that stimulate your mind (TV, exciting books). Reading self-help books may help you feel drowsy. Go back to bed when you feel sleepy. If you still can't fall asleep, get up again and repeat as necessary. |
| If you wake up during the night |
| If you can't get back to sleep, follow the procedure above (if you can't fall asleep). |

Example of cognitive-behavioral interventions to assist patients with fatigue during cancer therapy

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| Self-care management |
| Listen to a guided imagery tape daily |
| Eat calorie and protein-dense foods |
| Engage in low-impact exercise daily |
| Take brief naps early in the day |
| Information, decision-making, and problem solving |
| Assess family and social resources and ask for help with daily tasks if needed |
| Teach side effects of chemotherapy and when to anticipate the nadir |
| Prioritize daily activities |
| Communication with health care providers |
| Tell the doctor if you have no energy |
| Tell the doctor if you feel so exhausted you cannot move |
| Tell the doctor if you are unable to perform usual daily activities |
| Counseling and support |
| Encourage verbalization of how fatigue has altered lifestyle and has affected emotional well-being |

Adapted from Given C, et al. J Clin Oncol 2004; 22:507.

Calisthenics: Sit-to-Stand

- Begin in a seated position. Slowly stand up to a normal standing position; try to do this without using your hands for assistance or balance. Return to the seated position in a slow, controlled motion. Work up to doing this exercise 15 times in a row, repeating the exercise twice.



Calisthenics: Seated Marches

- Sit on the front of the chair with your back straight and your feet flat on the ground. Slowly lift your knee towards your chest. Once you are unable to lift your leg any further, hold for 2 seconds. Slowly return your foot to the ground. Work up to doing 15 on each leg, repeating the exercise twice.



Calisthenics: Straight Leg Lift to the Side

- Stand behind your chair, using the back of the chair for balance. Begin in a normal standing position, with your feet about hip width apart. Keeping your leg straight, with your toes facing forward, slowly lift your leg to the side. Once you are unable to lift your leg any farther, hold this position for 2 seconds. Slowly return to a normal standing position. Work up to doing this exercise 15 times in a row, repeating the exercise twice.



Calisthenics: Straight Leg Lift to the other side

- Stand behind your chair, using the back of the chair for balance. Begin in a normal standing position, with your feet about hip width apart. Keeping your leg straight, with your toes facing forward, slowly lift your leg, bringing raised leg in front of stationary leg. Once you are unable to lift your leg any farther, hold this position for 2 seconds. Slowly return to a normal standing position. Work up to doing this exercise 15 times in a row, repeating the exercise twice.



Calisthenics: Calf Raises

- Stand behind your chair, using the back of the chair for balance. Begin in a normal standing position with your feet flat on the ground, about shoulder width apart. Slowly roll up on the ball of your feet until you are standing on your toes. Hold this position for 2 seconds, and then slowly return to a normal standing position with your feet flat on the ground. Work up to doing this exercise 15 times in a row, repeating the exercise twice.



Calisthenics: Straight Leg Lift to the Back

- Stand behind your chair, using the back of the chair for balance. Begin in a normal standing position, with your feet about hip width apart. Keeping your leg straight, with your toes facing forward, slowly lift your leg to the back. Once you are unable to lift your leg any farther, hold this position for 2 seconds. Slowly return to a normal standing position. Work up to doing this exercise 15 times in a row, repeating the exercise twice.

