

# LIFELINE

St. Jude for Life



Spring 2014

## Research MATTERS: Physical Frailty and Early Aging

Dear St. Jude Alumni,



Thanks to your participation in the St. Jude LIFE study we are continuing to find new information to help survivors cope with health challenges as they age.

In this issue's featured research, we looked at frailty, a condition that is commonly linked to old age. We learned that young adult survivors are more frail than non-survivors of similar ages and that many survivors become frail at earlier ages than other Americans. This may mean that survivors are aging at a faster pace than expected.

The very good news is that frailty doesn't have to be a permanent condition. Research in elderly adults has shown that physical activity can slow or reverse frailty. In fact, the best advice for fighting frailty is to get out and enjoy life by finding physical, mental, and social activities you like to do and that increase your pleasure in being alive. We at St. Jude are rooting for you!

Thanks again, participants, for making this research possible.

Melissa M. Hudson, MD  
Principal Investigator,  
St. Jude Lifetime Cohort Study

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Research Hospital  
ALSAC • Danny Thomas, Founder

### WHY did we study frailty and early aging in the St. Jude LIFE Study?

Frailty is a condition defined by loss of muscle mass, strength, and overall stamina (staying power). People often become more frail as they age. We know that childhood cancer survivors develop many age-linked chronic conditions earlier in life than their non-survivor peers. We wanted to learn if young survivors were also more likely to be frail.

### WHO participated in this study?

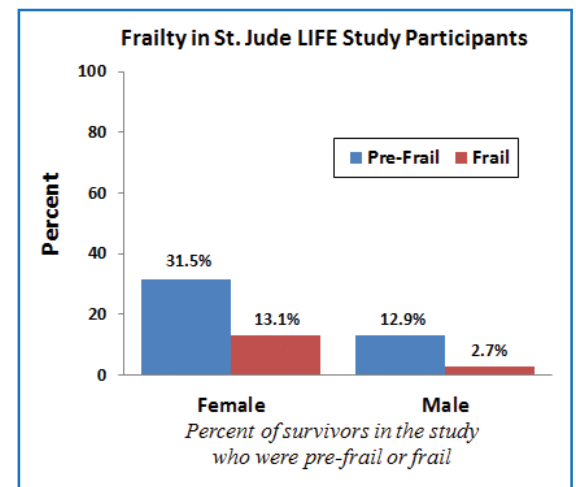
- 1922 St. Jude Life study participants took part. About half were male and half female. Their average age at the time of the St. Jude Life evaluation was 33.6 years.
- 341 individuals without cancer histories served as the study comparison group.
- 162 of the 1922 survivors returned for a second visit. We used the information gathered at their two visits to learn about links between frailty and the development of new health conditions.

### HOW did we measure frailty?

We looked at the presence of five signs: weakness, exhaustion, low lean-muscle mass, slow walking speed, and low activity levels. If a person had two of these signs he or she was considered to be "pre-frail". Those who had 3 or more signs were considered to be frail.

### WE FOUND that . . .

- About one out of eight female survivors in the study (13.1 percent) was frail, that is, had at least three of the five qualifying conditions. One out of 37 male survivors (2.7 percent) was frail.
- Young adult survivors were more likely than non-survivors to be frail. In fact, there was no frailty seen in the non-survivor group.
- People who had radiation therapy to the brain were more likely to be frail, as were men who had abdominal/pelvic radiation.
- Men who smoked or were obese or very underweight were more likely to be frail.
- Frail survivors were more than twice as likely as survivors who were not frail to have a new health problem discovered at their followup visit.



### YOU CAN take steps to fight frailty:

- Talk to your doctor about it and discuss ways to become more fit.
- Challenge yourself to take part in physical activities you enjoy. A daily walk, doing housework, even participating in social activities can help combat frailty.
- Look into resistance training, i.e., weightlifting. Your healthcare provider may be able to connect you to a class.
- Choose a healthy lifestyle—reach and stay at a healthy weight; avoid smoking.

## Stay in the game—fight frailty with activities you enjoy



Dr. Kirsten Ness led the frailty research study

A surprising number of young adult survivors show signs of early aging, or frailty. This is a serious problem that needs to be addressed because frailty is linked to a greater risk of death and chronic health problems for survivors. Increasing physical activity levels—exercise—is the best prescription for reversing frailty. Exercise combats health problems, increases strength, boosts energy, lifts mood, promotes healthy

sleep, improves appetite but controls weight, and can be a lot of fun. So how do you get in (or stay in) the exercise game?

**Start by talking to your doctor.** If you feel exhausted or weak or have any of the other signs of frailty, you can fight back by practicing good health habits. Talk to your doctor about ways to step-up your activity levels and improve your diet. Make sure both you and your healthcare providers know your treatment history so you can set healthy goals that are right for you.

**Do what works for you.** Most survivors, including those with special needs, can be physically active. Your healthcare provider can help you decide which activities you can safely take part in and which you should avoid. Aim to be as physically active as your abilities and condition allow. You might want to consider the following recommendations from the US Department of Health and Human Services as goals to work toward:

- Get 150 minutes of moderate to vigorous physical activity a week. That works out to 30 minutes a day, five days a week. You can even break the 30 minutes into 10-minute segments spread throughout the day and still enjoy the same health effects.
- Include strength training activities (lifting weights or working out with stretchy fitness bands) on two or more days a week.

**Begin slowly and don't give up.** If you haven't been too active recently, it's important to begin increasing your activity levels gradually. For example, you might start by walking to the corner after dinner. Once you're comfortable doing that, set additional goals to walk a bit farther and up your speed.

As your activity levels increase, you'll gain the capacity to do more. And, if you find after awhile that you've let your exercise habit slip, don't hesitate to start over. Keep at it and reap the rewards in health and life satisfaction.

**Stretch, breathe, lift.** To get the full benefit from increased physical activity, choose a variety of activities (appropriate for your circumstances) where you stretch, breathe hard, and work your muscles. Consider flexibility exercises like yoga, aerobic activities like brisk walking, and resistance-training with weights or bands to increase strength. Ask your doc-

### Move in ways that make you smile

Exercise can slow or reverse frailty but if activities like jogging or lifting weights sound overwhelming—and they might if you're too tired to get off the couch!—remember that ALL physical activities count as exercise. Think about the things that make you smile. Gardening, playing with the kids, dancing? They all count.

Once you're moving more—and smiling more—you might find you're ready to give a more formal exercise program a try.

tor to help connect you with an exercise class. (If you have a physical disability you might need the help of a physical therapist or similar health professional to design modified exercises you can do.) Get involved in a physical activities that you like and that work for you. Often people start exercising with an activity that they don't enjoy, and then they don't keep it up. Find something that you'll want to do.

**A healthy diet is important, too.** Fuel your moves with healthy meals that include fresh fruits and vegetables, whole grains, and moderate amounts of protein and good fats like olive oil.

**Participate in research.** A new study of frailty in childhood cancer survivors will open soon at St. Jude. The study will look at changes in frailty over a 5-year time period to learn about links between frailty and chronic health conditions, treatment factors, physical activity, diet, and smoking. St. Jude LIFE participants between the ages of 18 and 39 will be recruited for this study. Please call the study toll-free number if you're interested in participating:

1.800.775.2167

The findings from the frailty study were recently published in the *Journal of Clinical Oncology*.

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### ONLINE RESOURCES:

[www.survivorshipguidelines.org/pdf/DietandPhysicalActivity.pdf](http://www.survivorshipguidelines.org/pdf/DietandPhysicalActivity.pdf)  
*Children's Oncology Group Health Link*

[www.ncpad.org](http://www.ncpad.org)  
*Website of the National Center on Health, Physical Activity, and Disability*