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Smart Patients Get Smart Care™

Health and Wellness: Beyond the Medicine Cabinet

April 25, 2022

10 AM PT, 11 AM MT
12 PM CT, 1 PM ET

Pre-Event Notes

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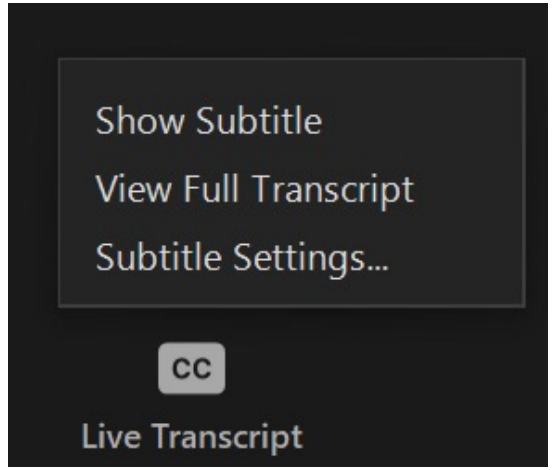
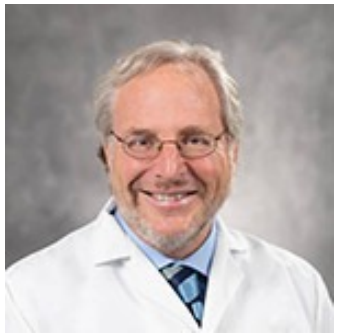
- The audience is muted
- Please direct your questions to CLL Society staff and speakers using the Q&A function (located at the bottom of your screen) at any time throughout the presentation
- Questions can only be seen by staff and speakers. We will do our best to answer as many questions as possible
- Please complete the short survey emailed after the event. Your response will help CLL Society plan future events
- The virtual event is being recorded and will be available on our website
- Closed captions are available. If you want to turn them on or off, go to Live Transcript and Show Subtitle or Hide Subtitle



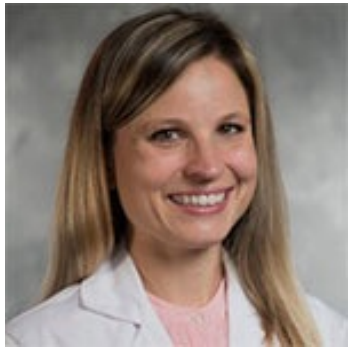
This program was made possible by grant support from

Speakers

Glenn Sabin
CLL Patient Advocate



Gordon Saxe, MD, PhD, MPH
Preventive and Integrative Physician
UC San Diego Health



Andrea Sitlinger, MD
Assistant Professor of Medicine
Duke University School of Medicine

CLL Society Staff

Welcome
Robyn Brumble, MSN, RN
Director of Scientific Affairs and Research
CLL Society

Moderator
Brian Koffman, MDCM (retired) MS Ed
Executive Vice President and Chief Medical Officer
CLL Society

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- CLL Society encourages all patients to discuss with the healthcare team about what would be their best approach to diet, exercise, lifestyle changes and supplements to help with the management of their CLL/SLL.
- Healthy decisions can be very beneficial but should always be coordinated with the doctors and their team who are managing their CLL/SLL.

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Leveraging Lifestyle for Immunity and Resiliency

Glenn Sabin

CLL Patient Advocate

April 25, 2022

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Diet in the Prevention of Cancer

Gordon Saxe
MD, PhD

April 25, 2022

Cancer: A Bolt From Out of the Blue?

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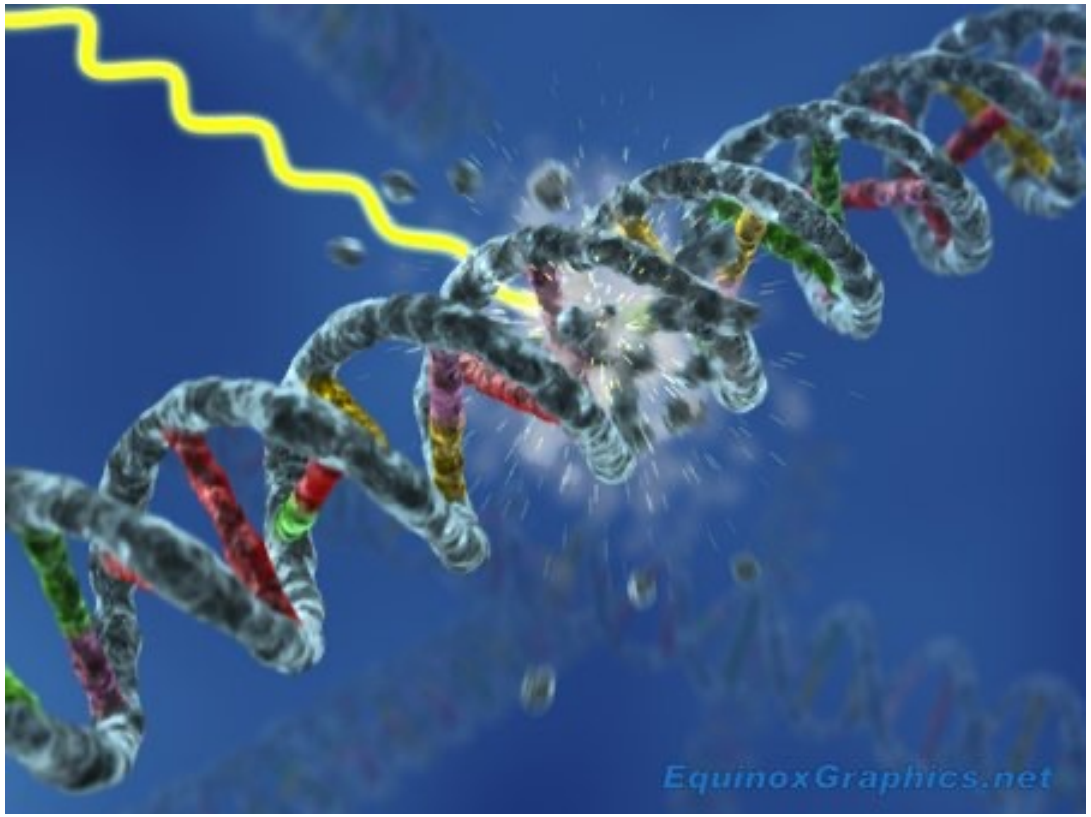

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Nature Reviews | Cancer

International Variation in Prostate Cancer

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China	*1.4 per 100,000*
Sweden	*55.3 per 100,000*
United States	*102.1 per 100,000*

Cancer Development: Initiation vs. Promotion

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- Initiation:
  - Mutation in cell that predisposes it to become cancerous
- Promotion:
  - Proliferation of mutated cell that causes it to form a cancer
- If we stop promoting initiated cells, we may be able to slow the growth of cancers and possibly even cause them to stop growing or regress

Cancer Development: Initiation vs. Promotion

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- Mutated cells are like individual pieces of grass and the cancer is like an entire lawn
  - We’re highly skilled at mowing the grass
  - But maybe we should also try to stop overwatering the lawn?

What are the promoting factors?

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Possible Nutritional Cancer Promoters

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- Obesity
- Excess calories
- Sugar and refined/processed foods
- Excessive protein or fat
- Inflammatory fats (high in omega-6, low in omega-3)
- Dairy/casein
- Deficiency of fibrous plant foods
- Deficiency of phytonutrients
- Vitamin D deficiency
- Gut microbiome imbalance

Nutrition and CLL

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- Western diets linked with higher incidence of CLL
- Obesity may be a risk factor for poor outcome
- Research planned at UC San Diego to examine diet – CLL connection

Effect of adoption of a whole food, plant-based diet and stress reduction on rate of progression of advanced prostate cancer

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Saxe GA, Hebert JR, Carmody JF, Kabat-Zinn J, Rosenzweig PH, Jarzobski D, Reed GW, and Blute RD, “Can Diet in Conjunction with Stress Reduction Affect the Rate of Increase in Prostate Specific Antigen after Biochemical Recurrence of Prostate Cancer?” J Urology, 166(12): 2202-7, 2001

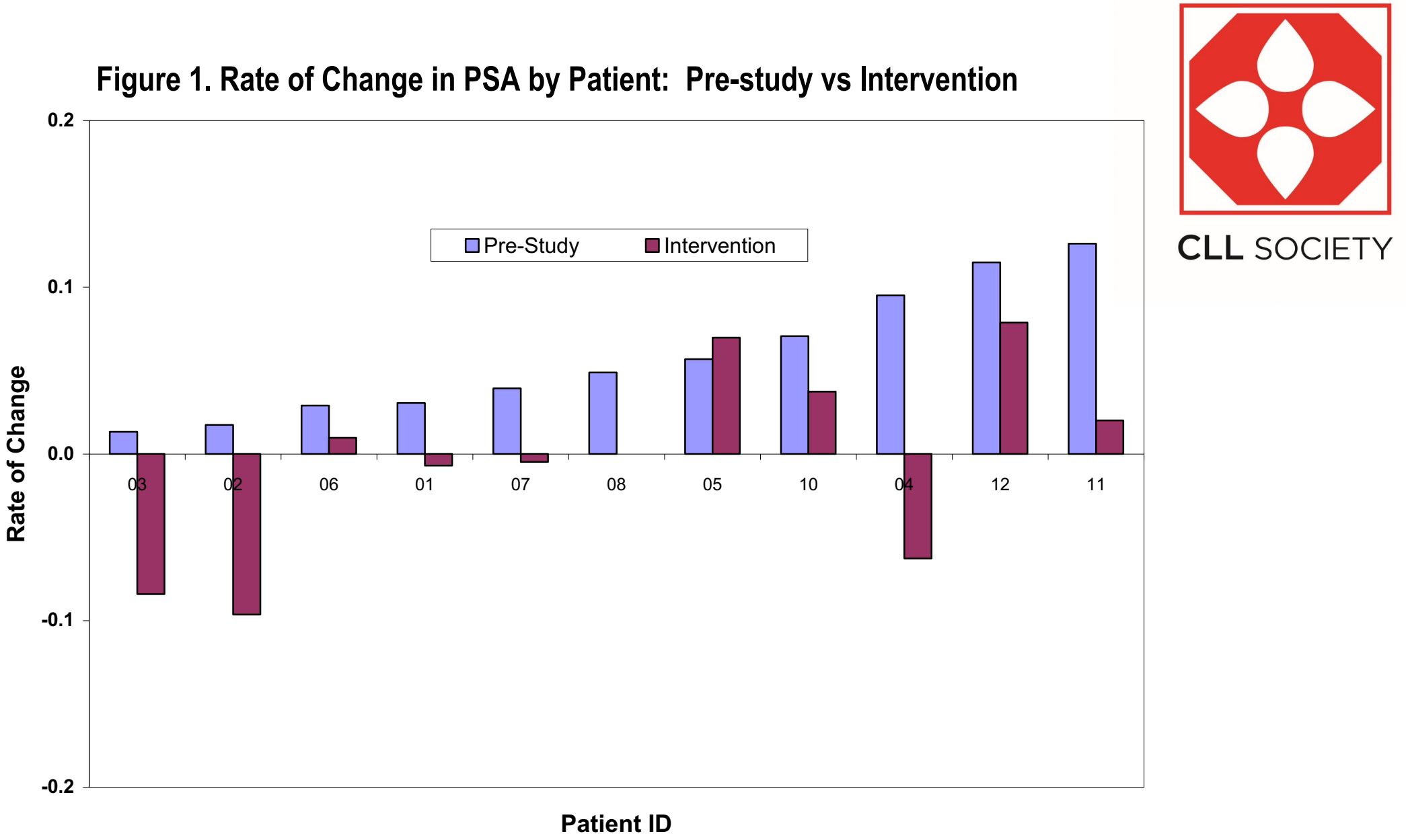
Figure 1. Rate of Change in PSA by Patient: Pre-study vs Intervention
0.2
0.1
0.0
-0.1
-0.2
Rate of Change
Pre-Study
Intervention
03
02
06
01
07
08
05
10
04
12
11
Patient ID

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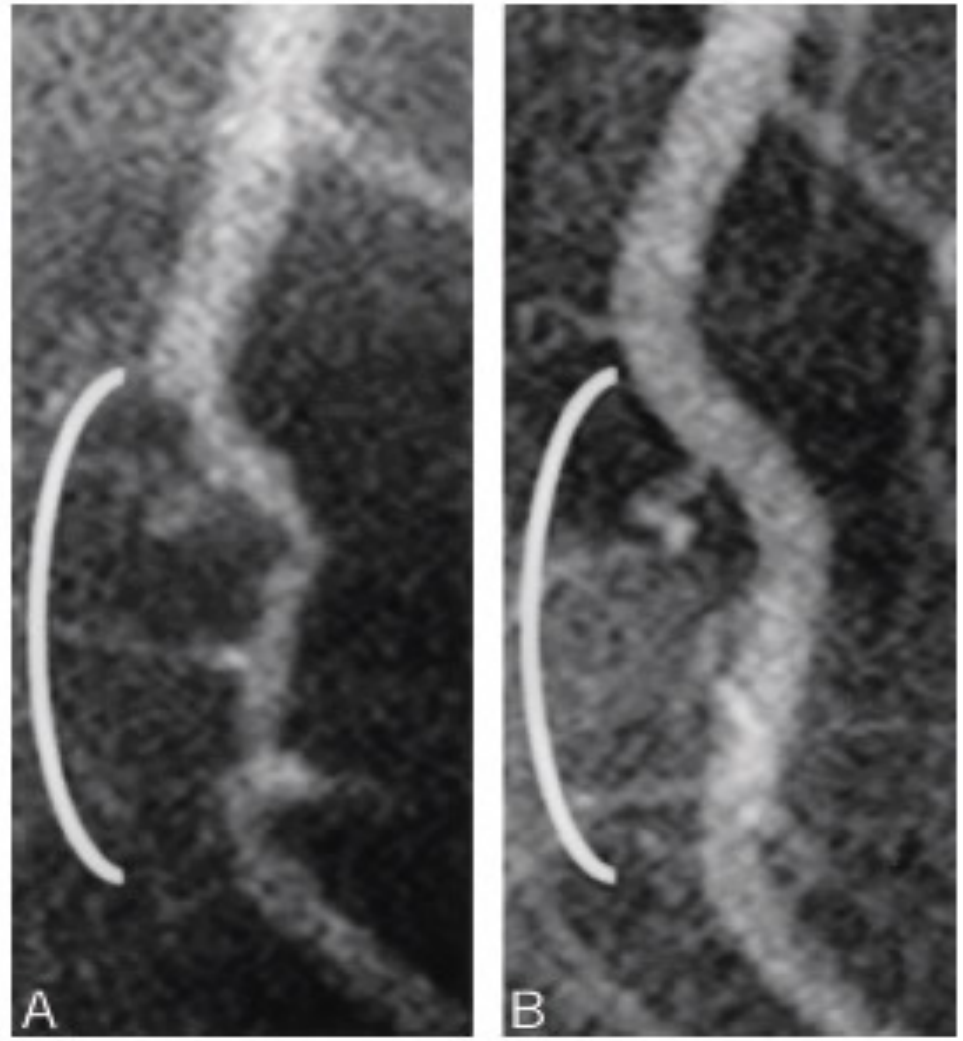
FIGURE 2

Reversal of coronary artery disease[4]



Coronary angiography reveals a diseased distal left anterior descending artery (A). Following 32 months of a plant-based nutritional intervention without cholesterol-lowering medication, the artery regained its normal configuration (B).

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The Five Pillars of a Cancer Preventive Diet

Pillar # 1:

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Whole, unrefined, unprocessed

Pillar # 2:

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Plant-based

Pillar # 3:

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Locally grown and in season

Pillar # 4:

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Organic, biodynamic, sustainable

Pillar # 5:

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Balanced

Foods with Possible Anti-cancer Properties

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- Whole grains, vegetables, and beans/legumes
- Fruits, seeds, and nuts
- Dark leafy greens
- Brassica (cabbage family vegetables)
- Allium (onion family vegetables)
- Polypore mushrooms (e.g. shitake, maitake)
- Sea vegetables
- Fermented/probiotic plant foods (miso, sauerkraut)
- Green tea (contains EGCG)
- Various herbs (turmeric)

Brilliant—cold porridge and stale bread again!

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UC San Diego Study on a Natural Approach to COVID Vaccine Enhancement in CLL Patients

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- Research question:
  - Can taking capsules of polypore mushrooms for several days at time of COVID vaccination increase antibodies and improve overall vaccine response?

- Study design:
  - Double-blind, placebo-controlled randomized clinical trial
  - May also involve recruitment at sites beyond Southern California

- For more info:
  - CLL Society will share additional information as it becomes available

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Stay Moving: CLL and Exercise

Andrea Sitlinger, MD

4/25/2022

Learning Objectives

- General Health Benefits of Exercise
- Difficulties to Fitness in CLL
- Potential Additional Benefits of Exercise in CLL
- How Exercise can be Feasible in CLL

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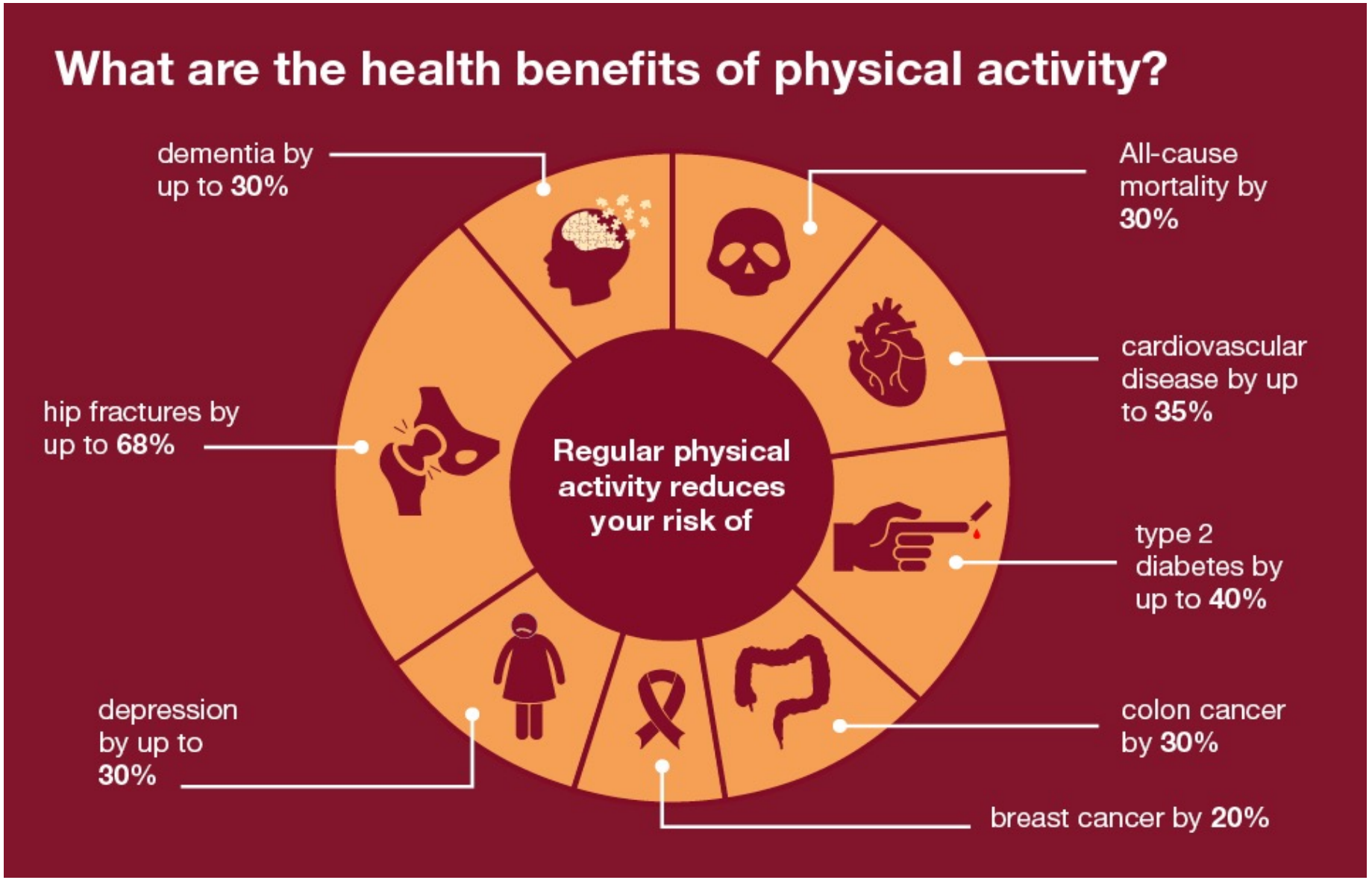
Why is Physical Activity Beneficial?



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Public Health England, Department of Health, UK. Health matters: getting every adult active every day. https://www.gov.uk/government/publications/physical-activity-applying-all-our-health/physical-activity-applying-all-our-health (2016).

Physical Activity Cross Sectional Study at Duke CLL Clinic

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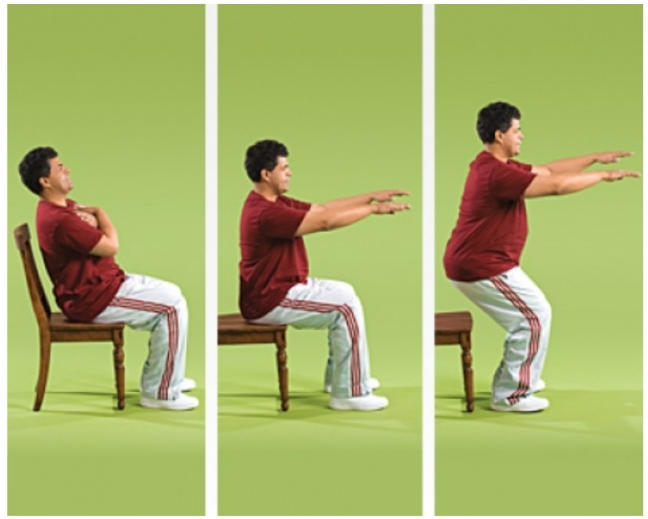
- Physical Activity Surveys
- Grip strength
- 6 minute walk test (6MWT)
- Timed Get Up and Go
- Short Physical Performance Battery (SPPB).
  - Four meter gait speed test
  - Chair Stands
  - Balance Testing
- Predicted aerobic fitness (VO_{2peak})
  - calculated from a validated algorithm using the 6MWT, age, body weight, resting heart rate, and gender.



Go4life National Institute on Aging at NIH
https://go4life.nia.nih.gov/exercise/chair-stand/

Results

- Surveys both had 90% validity and full completion.
- The surveys were positively associated with each other
- Activity results from all patients were 60% to 70% of age-predicted normative values.
  - 48% of patients were inactive or engaged in light activities
  - 28% moderate intensity activities (by SBAS)
- Aerobic Capacity/Strength (VO_{2peak}) was 64±13% of normative values.
- The surveys and physical function tests did not correlate.

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Sitlinger A, et al. iwCLL 2019 international conference abstract presentation.

Randomized Controlled Trial of the Effects of Aerobic Exercise on Physical Functioning and Quality of Life in Lymphoma Patients

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- 122 patients were recruited
  - 62 patients in the control group
    - 10 CLL patients
  - 60 patients in the exercise intervention
    - 4 CLL patients

- Intervention
  - Stationary bike 3 times per week for 12 weeks
  - Intensity of exercise increased each week

Courneya, KS et al. J Clin Oncol, 2009.

Results/Conclusions

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Immediately Post Intervention

- Better outcomes were found in the following:
  - Physical functioning
  - Overall quality of life
  - Fatigue
  - Happiness
  - Depression
  - General health
  - Cardiovascular fitness
  - Lean body mass

6 Months After the Intervention

- Still found improvements in the following:
  - Overall quality of life
  - Happiness
  - Depression
- No increased risk of disease recurrence or progression

Courneya, KS et al. J Clin Oncol, 2009.

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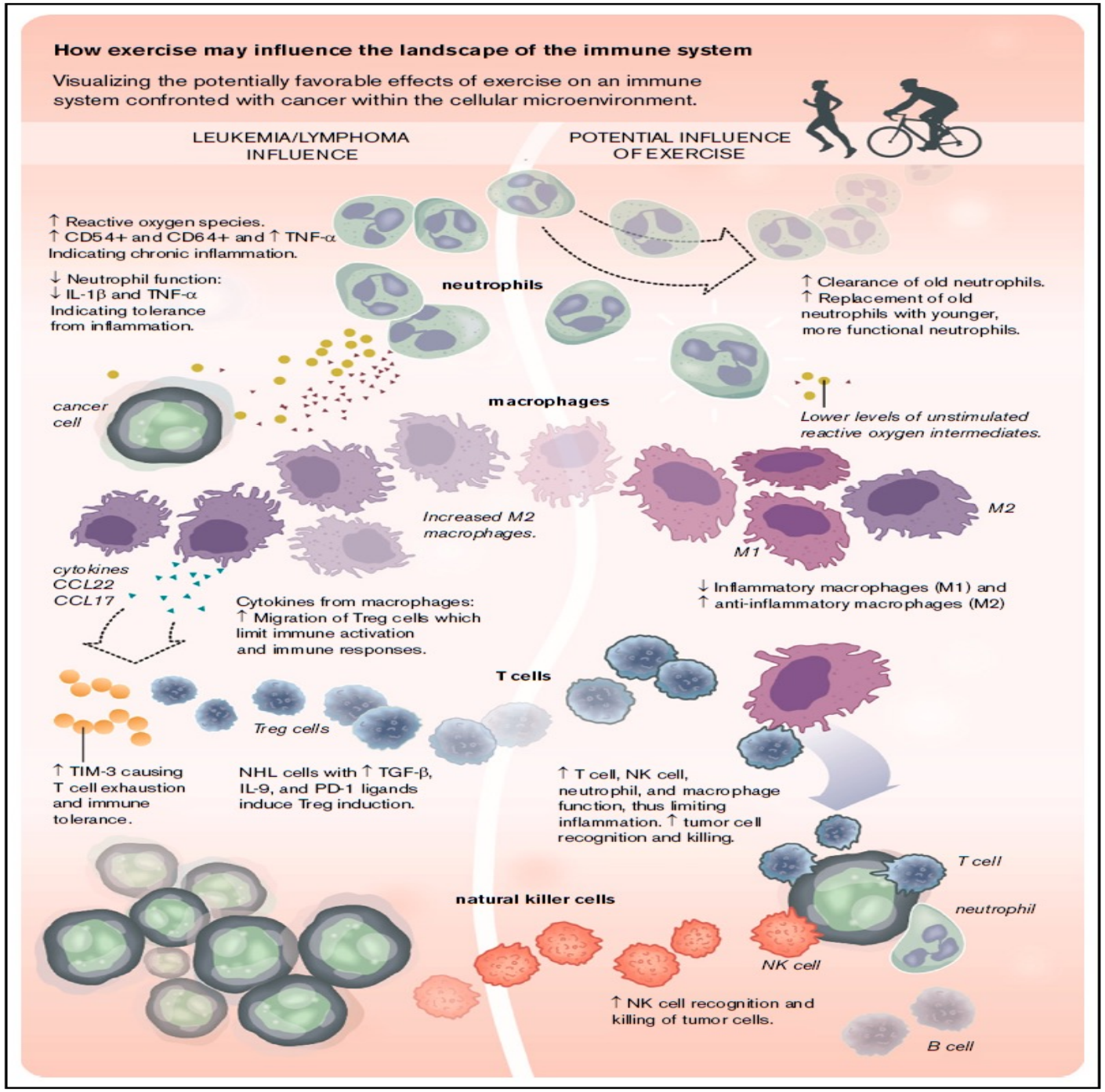

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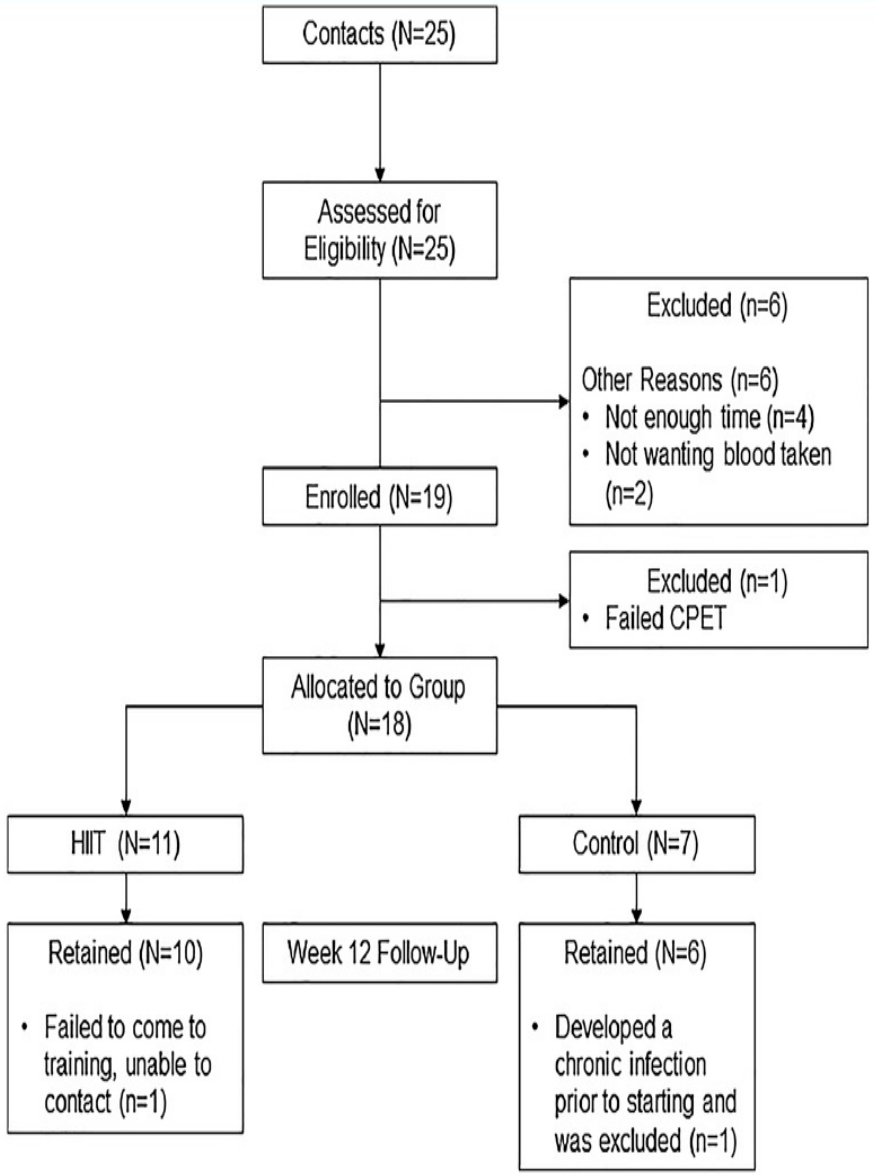
Sitlinger A, et al. Blood Advances. April 28, 2020.

A pilot study of high-intensity interval training in older adults with treatment naïve chronic lymphocytic leukemia



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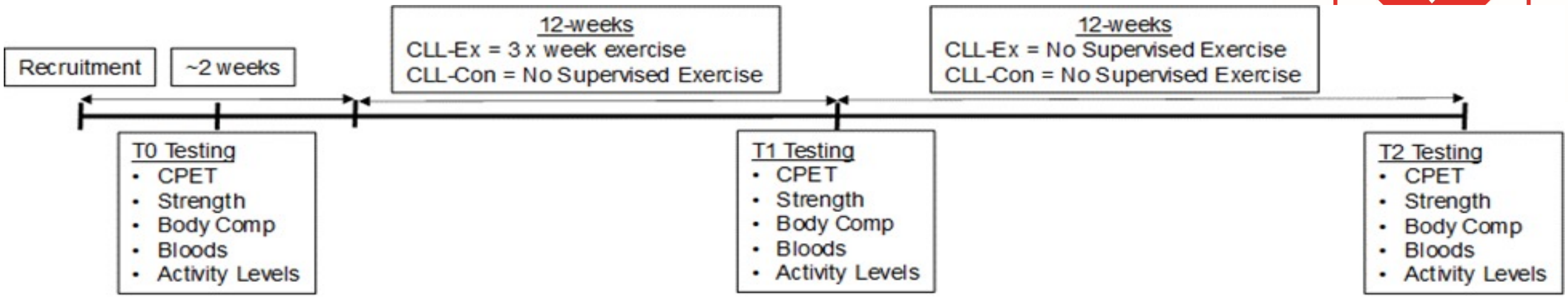
- Treatment Naïve
- Average age
  - 64 yo for the intervention
  - 66.5 yo for the control group

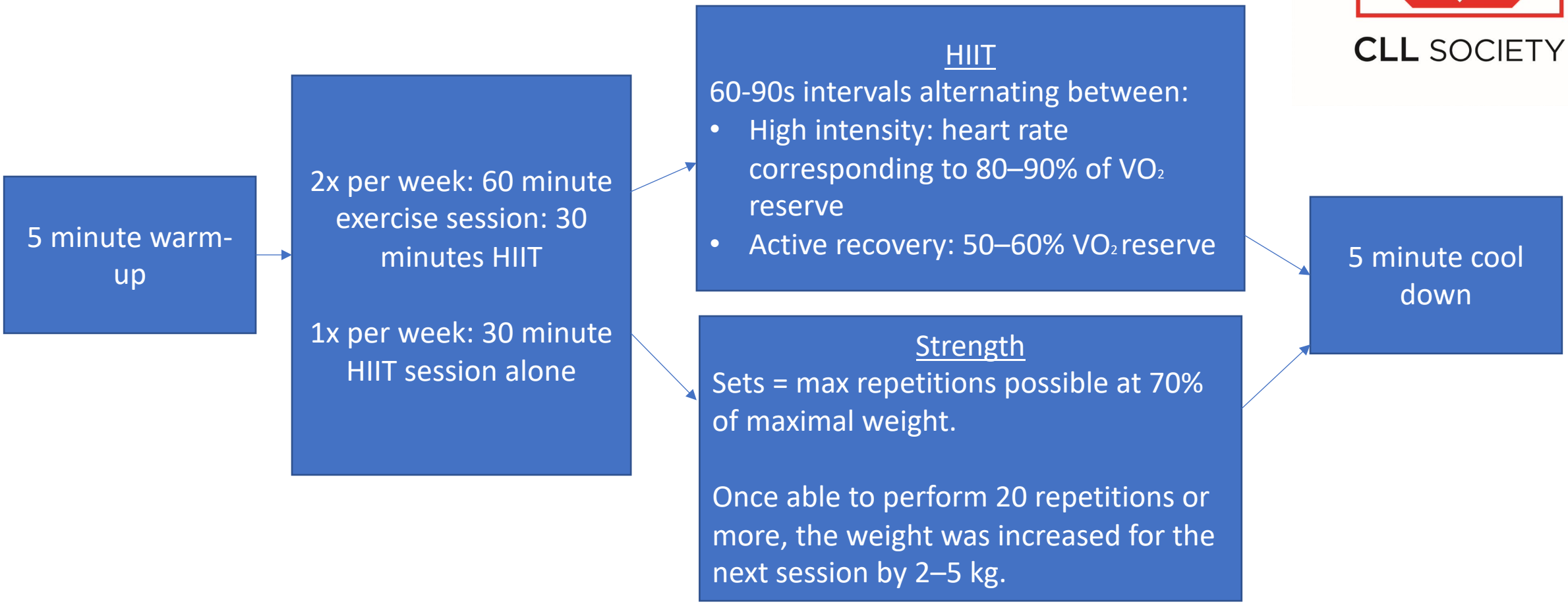
MacDonald G, et al. Scientific Reports | (2021) 11:23137

Pilot Study of Exercise



MacDonald G, et al. Scientific Reports | (2021) 11:23137

The Exercise Prescription



MacDonald G, et al. Scientific Reports | (2021) 11:23137

Results

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- 99 +/- 3.6% of the prescription was completed amongst the patients.
- 100% of participants completing > 80% of high-intensity intervals at the prescribed heart rate.
- No serious/major injuries.
- 100% of HIIT participants reported minor muscle soreness due to the resistance and aerobic exercise but were considered normal reactions to exercise training.

MacDonald G, et al. Scientific Reports | (2021) 11:23137

More Results

	Maximal Strength	Muscular Endurance
Leg Press	35.4% ↑	10.4% ↑
Chest Press	56.1% ↑	21.7% ↑
Seated Row	39.5% ↑	29.2% ↑

- in vitro NK-cell cytolytic activity against cancer cell lines
  - The K562 cell line 20% higher, OSU-CLL cell line 3.0% higher, and autologous B-cells 14.6% higher than controls.

- Aerobic capacity actually decreased marginally (3.8%) in the exercise group compared to control.

MacDonald G, et al. Scientific Reports | (2021) 11:23137

Conclusion

- Exercise can be beneficial in a number of domains for CLL patients.
- Exercise is feasible and safe!
- There may be immune system benefits though this needs to be explored further.

Poll Questions

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Audience Questions & Answers

This program was made possible by grant support from

Thank You for Attending!

Please take a moment to complete our **post-event survey**, your feedback is important to us

If you're question was not answered, please feel free to email asktheexpert@cllsociety.org

Join us on May 16th for our upcoming webinar on clinical trials

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