

The “How To’s” to Building a Top-Notch Immune System With Lifestyle Changes

This webinar will start shortly

Become a member of DPC at <https://www.dialysispatients.org/get-involved/join-dpc/>

Follow us on social media:

Facebook: www.facebook.com/dpcedcenter

Twitter: @DPCEdCenter

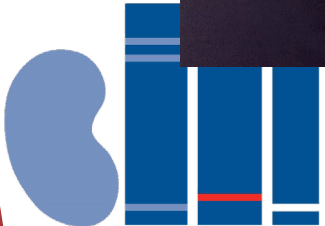
LinkedIn: www.linkedin.com/company/dpcedcenter

Instagram: @dpceduccenter

Today's Presenter

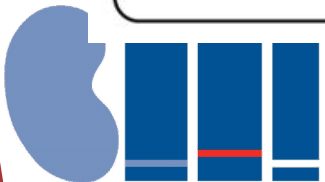
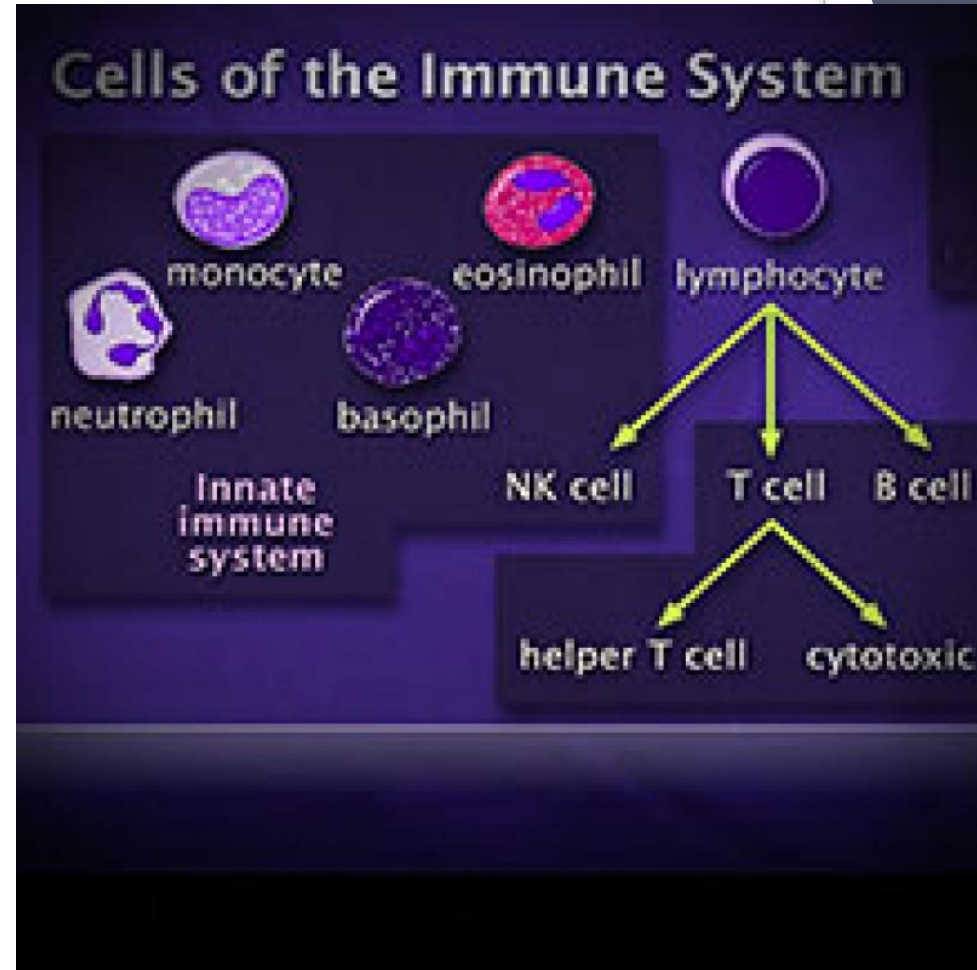
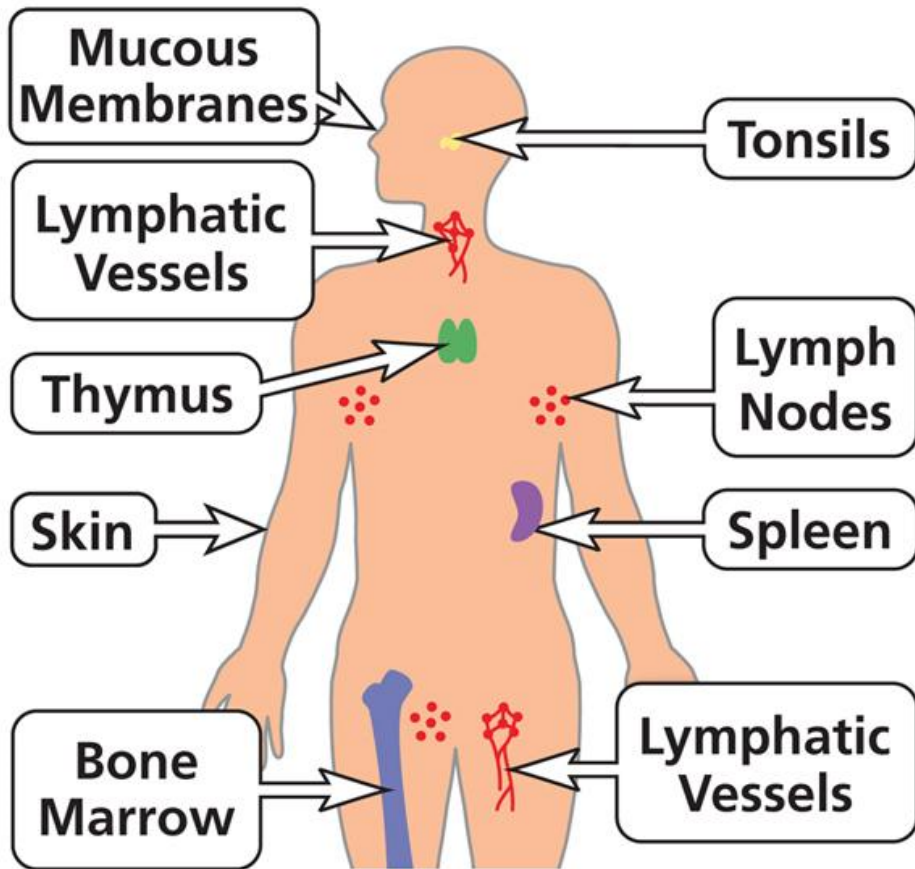


- ▶ *Fanny Sung Whelan is a Registered Dietitian licensed in Tennessee. She has been working with renal patients for 10 years, specializing in home therapies, and for the past 8 years, with transplant and all stages of CKD patients as well. She also has experience working with the elderly and end of life nutritional care.*

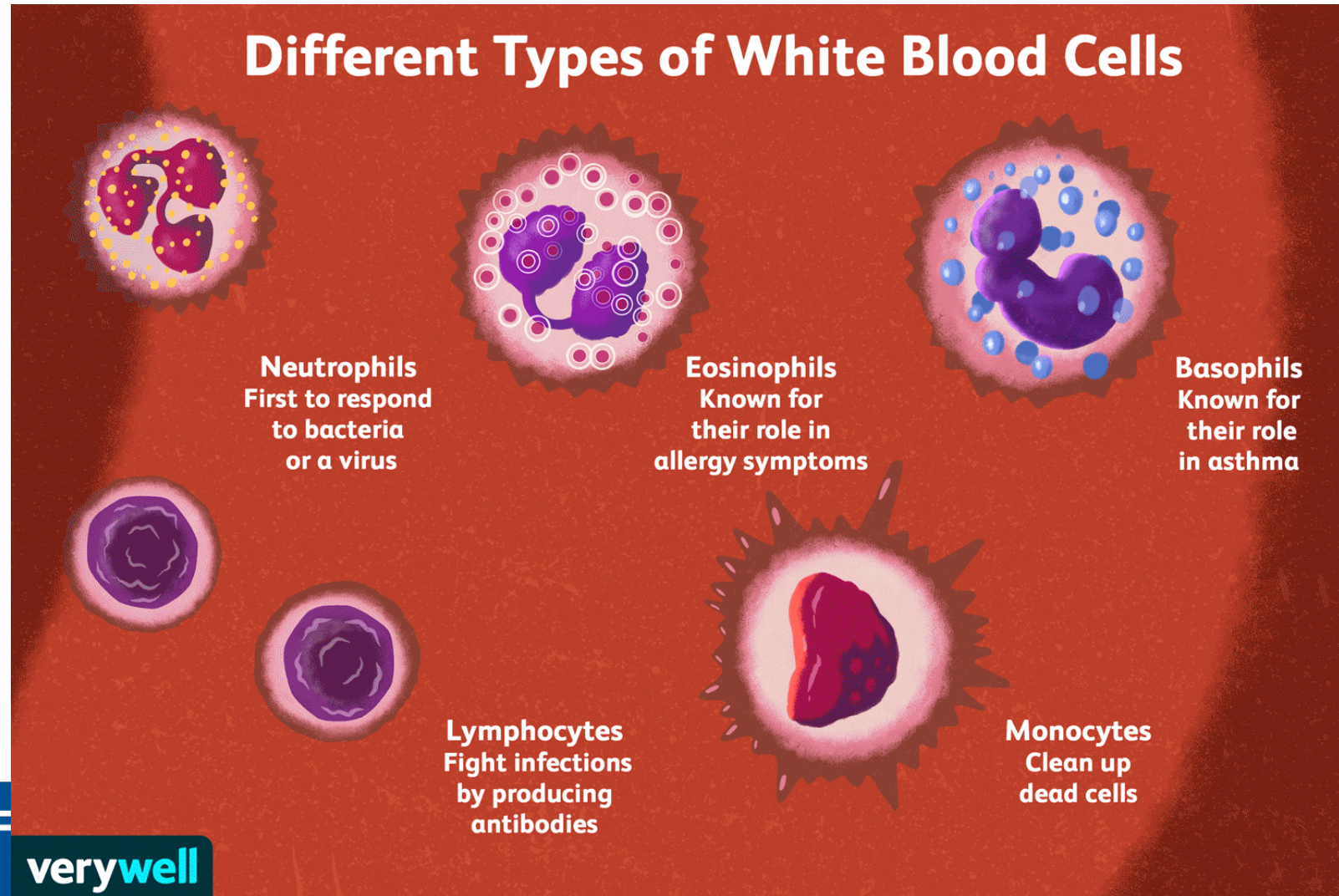


What is your immune system?

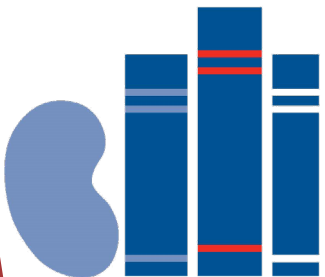
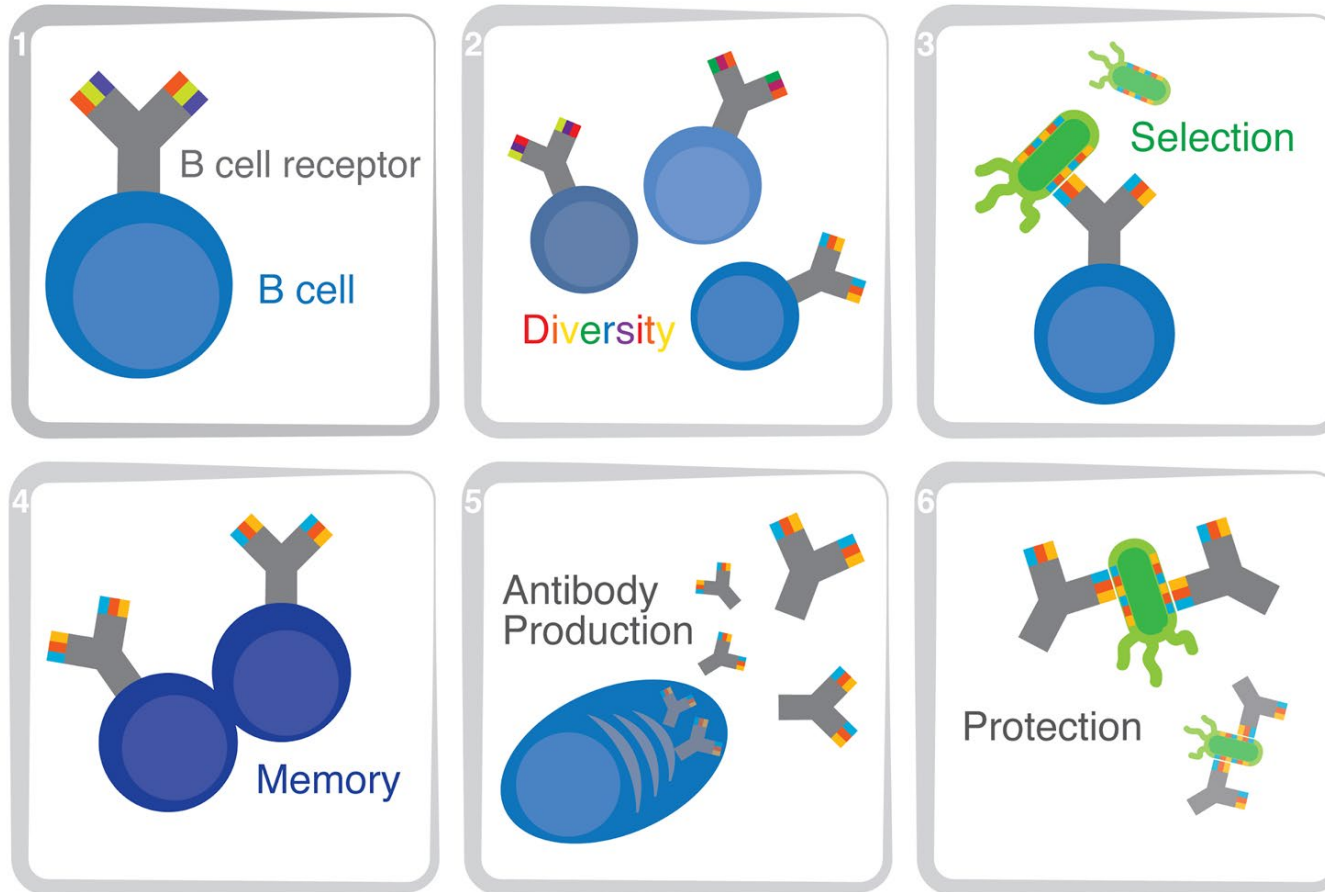
Immune System



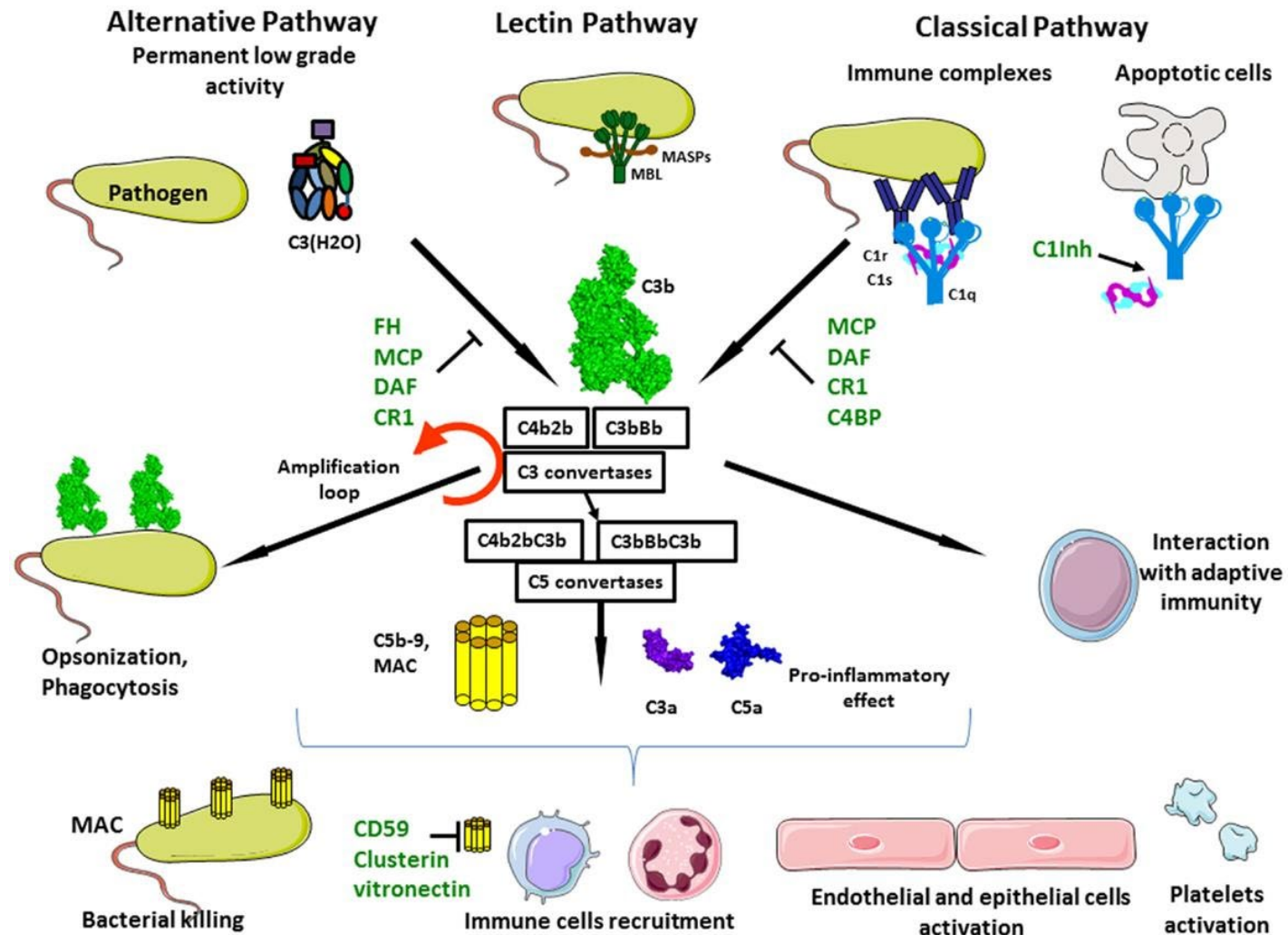
White Blood Cells



Antibodies



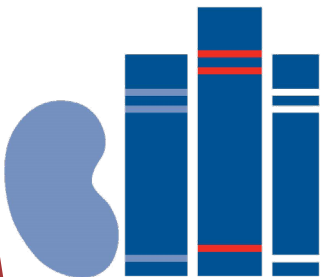
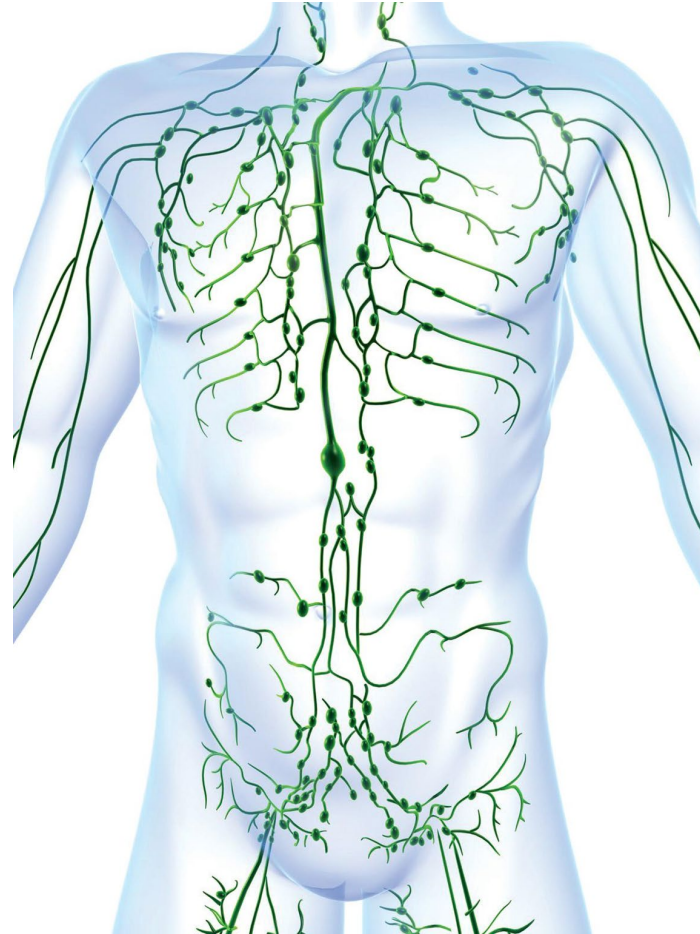
Complement System



Lymphatic System

Lymphatic system's main functions:

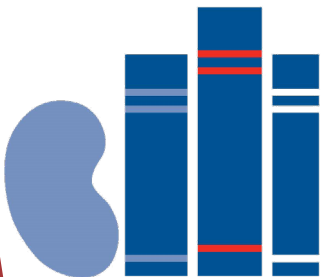
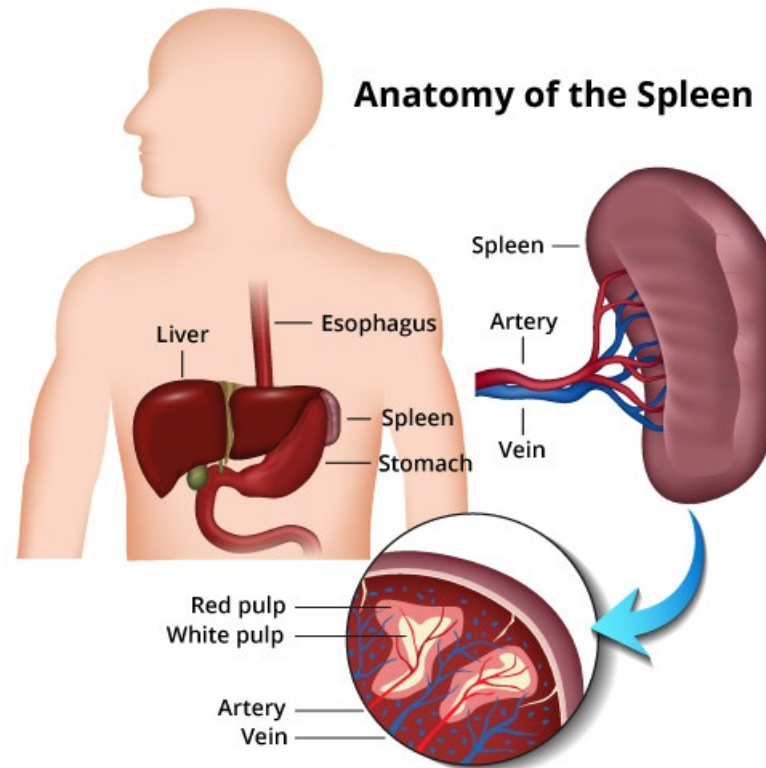
- Keep a healthy balance of fluid in the tissues
- Transport proteins and digested fats to provide your cells with nutrients
- Help fight infection by removing bacteria, viruses and other germs



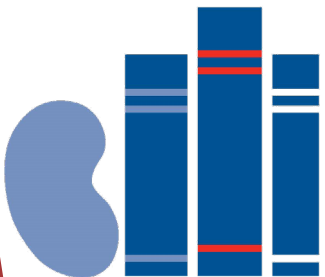
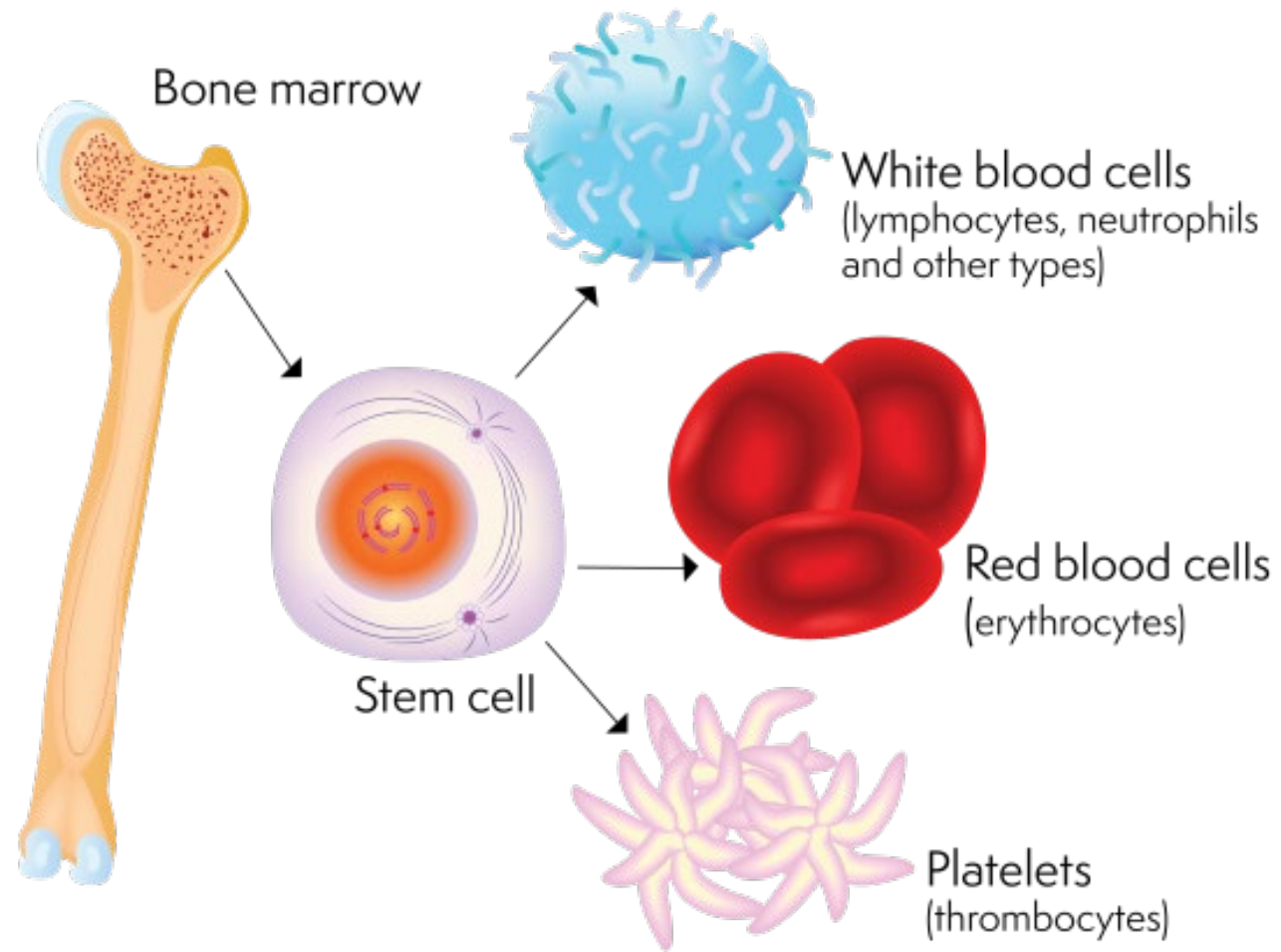
Spleen

Major functions of the spleen:

- Filters the blood of pathogens and waste products, removes destroyed or damaged RBCs
- Makes disease-fighting components of the immune system, including antibodies and lymphocytes



Bone Marrow



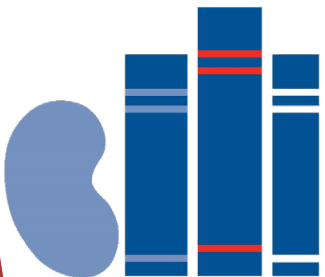
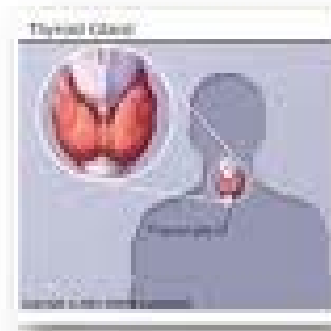
Thymus

Filters and monitors blood contents

Produces WBCs called T-lymphocytes

Location

- ❖ Thyroid-located in the neck
- ❖ Thymus-located behind the sternum

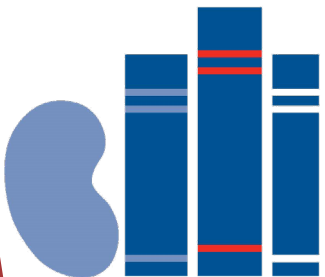


What helps your immune system?

The Three P's Approach:

1. PROMOTE optimal nutrition
2. Include regular PHYSICAL activity
3. Manage PRESSURE and stress

Getting an adequate amount of sleep



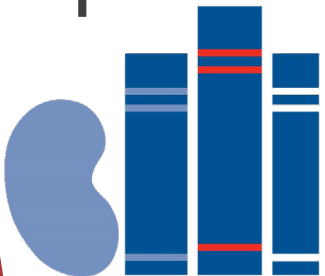
Disclaimer



Please discuss with your dietitian or physician any diet changes or vitamin supplementations you are considering.

Some of the following recommendations may not fit your specific dietary needs.

Also, none of these recommendations will replace wearing a mask and distancing to protect yourself against covid-19.



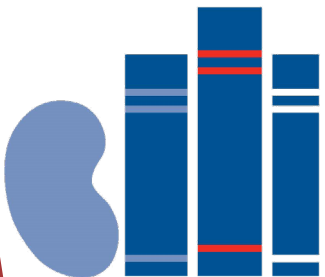
The Three P's Approach: Promoting Optimal Nutrition

Protein is KEY!

Vital role in healing process

Adequate amounts are important for creating antibodies and immune system cells

High biological value vs. Low biological value proteins:
Which one is right for you?



The Three P's Approach: Promoting Optimal Nutrition

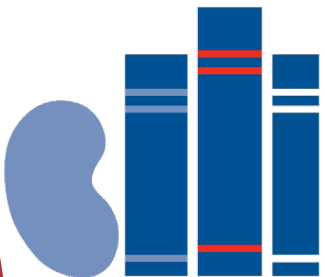


Zinc

Helps promote properly functioning immune system

Aids in wound healing

Most readily absorbed in animal proteins and some plant-based proteins such as beans, seeds and whole grains



The Three P's Approach: Promoting Optimal Nutrition

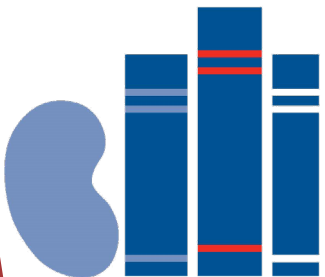


Selenium

An important antioxidant!

Helps by lowering oxidative stress, which reduces inflammation and promotes immune health

Brazil nuts, fish and shellfish, pork, beef, chicken, tofu, whole wheat pasta, shitake mushrooms and even beer!



The Three P's Approach: Promoting Optimal Nutrition



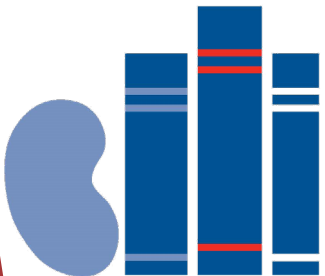
Vitamin A, aka Beta Carotene

Stimulates the production and activity of WBCs

Preformed vs provitamin A carotenoids

Many foods fortified with Vitamin A, such as dairy products, juice, fortified cereals.

Other kidney-friendly food sources include broccoli, carrots, red bell peppers, fish oils and eggs



The Three P's Approach: Promoting Optimal Nutrition



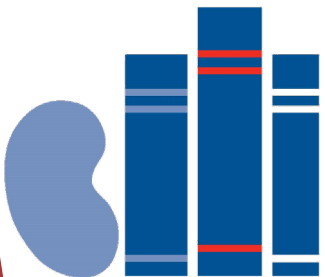
Vitamin C

Promotes healing

Protects against inflammation

Common food sources include bell peppers, tomatoes, potatoes, broccoli, brussel sprouts, strawberries, citrus fruits, berries, and melons

Vitamin C increases absorption of non-heme iron



The Three P's Approach: Promoting Optimal Nutrition



Vitamin D

Receptor is expressed on immune cells

Helps control infections, reduce inflammation and reduce cancer cell growth

Naturally occurring form produced by sun exposure (UVB rays)

Foods high in Vitamin D include fatty fish such as salmon, herring and sardines, egg yolks, mushrooms, fortified foods such as milk, soy/almond/rice/similar milk alternatives, orange juice, cereal and grains; supplementation often needs



The Three P's Approach: Promoting Optimal Nutrition

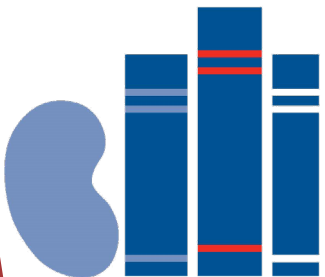


Vitamin E

High polyunsaturated fatty acid content of immune cells, contains most concentrated vitamin E of all cells

Enhances T-cell function

Found in fortified cereals, spinach, beet greens, pumpkin, red bell pepper, asparagus, avocado, seeds, nuts, and peanut butter



The Three P's Approach: Promoting Optimal Nutrition



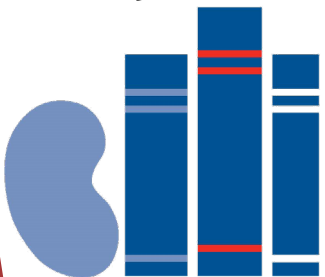
Omega 3 Fatty Acids

3 types: ALA, ELA, DHA

Reduce inflammation

Found to affect all immune cells

Fatty fish, such as salmon, mackerel, herring, sardines, anchovies, oysters, flax and chia seeds (grounded), walnuts, soybeans



The Three P's Approach: Promoting Optimal Nutrition



Probiotics

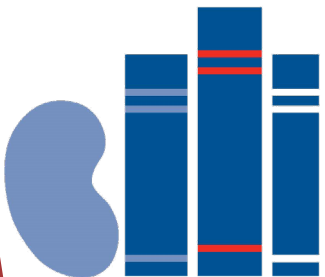
Not just for the gut!

Help influence the activity of immune cells and regulate inflammation

Gut and immune system bidirectional relationship

Think food fermentation!

Yogurt, sauerkraut, kefir, tempeh, kimchi, miso, kombucha, pickles and some cheeses (look for “live and active cultures” on the label)



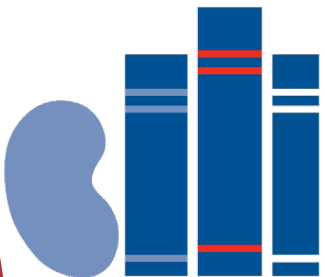
Include Regular Physical Activity



Associated with improved immune function and stress reduction

150-300 minutes of moderate intensity activity each week
(30-60 minutes most days of the week)

Walk Walk Walk!

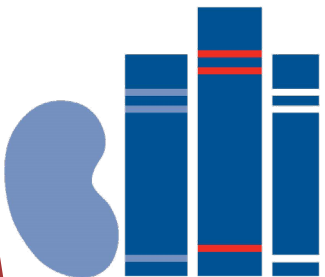


Manage Pressure and Stress

Significant impact

Physiological response that reduces killer cells

What are ways you can reduce stress?



Adequate Sleep

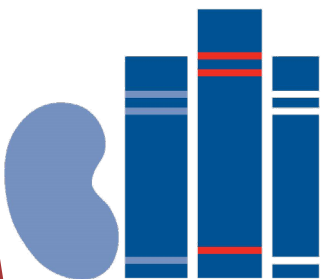


Sleep releases cytokines

Why during sleep?

What does sleep deprivation lead to?

What can you do to get more sleep?





Well-balanced diet that includes variety of vegetables, fruits, lean meats, fish and other seafoods

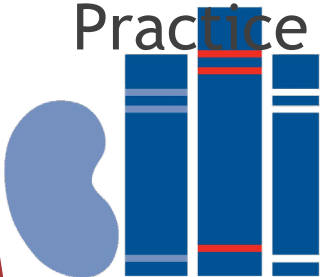
Stay hydrated

Aim for 30 minutes of physical activity most days of the week

Find ways to minimize and reduce stress

Get more sleep! Aim for 7-9 hours every night

Practice good hand hygiene



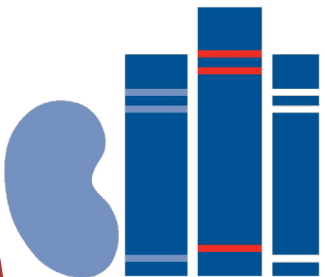
Resources

Academy of Nutrition and Dietetics: Support Your Health With Nutrition:
<https://www.eatright.org/health/wellness/preventing-illness/supportyour-health-with-nutrition>

Academy of Nutrition and Dietetics: How to Keep Your Immune System Healthy: <https://www.eatright.org/health/wellness/preventing-illness/howto-keep-your-immune-system-healthy>

National Kidney Foundation: 7 KidneyFriendly Superfoods:
<https://www.kidney.org/content/7-kidney-friendly-superfoods>

Centers for Disease Control and Prevention Coping Stress site at <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stressanxiety.html>



Resources

Online Course: Exercise and the Benefits to You and Your Kidneys

<https://www.dpcedcenter.org/resources/online-courses/exercise-and-thebenefits-to-you-and-your-kidneys/>

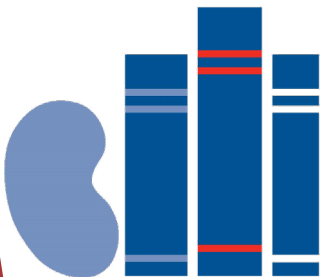
Article: Work Those Kidneys Out!

<https://www.dpcedcenter.org/newsevents/news/work-those-kidneys-out/>

Webinar: Get Your Sweat On! Exercising for Healthier Kidneys

<https://www.dpcedcenter.org/educationwebinar/get-your-sweat-on-exercisingfor-healthier-kidneys/>

The Sleep Foundation: <https://www.sleepfoundation.org/physical-health/how-sleep-affects-immunity>



Additional Information

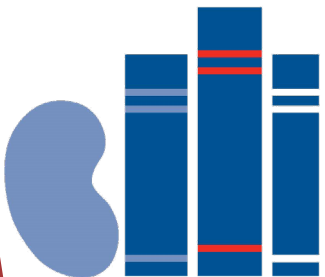
Article on Stress Management:

<https://www.helpguide.org/articles/stress/stress-management.htm>

Handout on Exercise:

https://www.exerciseismedicine.org/assets/page_documents/EIM_Rx%20for%20Health_Chronic%20Kidney%20Disease.pdf

Sample Grocery List: http://kitchen.kidneyfund.org/wp-content/uploads/2019/04/Pantry_List_032919.pdf



Questions?

Please use the Chat Box

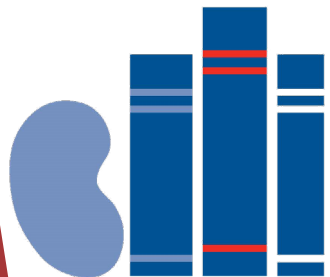


Thank You for Attending Today!

**Please complete
the Feedback
Form**

**Become a Member of
DPC and enjoy its
benefits at**

<https://www.dialysispatients.org/get-involved/join-dpc/>



**Join us on for our next
webinar on March 25th**

The Empowered Patient: Taking Steps to Manage Diabetes and Chronic Kidney Disease

Presented by
Stacy Ogbeide,
PsyD, MS, ABPP

 **2:00 pm
Eastern**

 **March 25,
2021**



Learn more and RSVP at
www.dpcedcenter.org