



SAMPLE

yoga4cancer™

Certificate Program Manual 2021

WELCOME

Welcome to the yoga4cancer community. I am honored to have you join me on the path of Oncology Yoga as it continues to emerge in the 21st century. Within the past twenty years, these two entities - oncology and yoga - have evolved separately and together to provide solutions for the growing numbers of cancer patients and survivors. Whether you are a yoga teacher or therapist, physical or occupational therapist, healthcare provider or research professional, survivor or caregiver, the work ahead is formidable. The time is right, the tools are available, and the research is detailed. The need is also paramount to make cancer a manageable disease and help cancer patients and survivors live longer, healthier, and happier lives through specialized yoga.

While the cure for cancer remains elusive, advancements in oncological research and disease treatments have led to decreased death rates and increased cancer survivorship. These improvements are fundamentally reshaping the way we must manage the disease and its impact on life, health, and wellbeing. Integrating yoga into the medical world has created a challenging yet opportunistic gap that demands an understanding of oncology, safe and effective yoga interventions, and appropriate training. Oncology and yoga share a common mission of seeking wellness and the relief of suffering, albeit from various disciplines. Combining these two words doubles the impact of their shared mission.

The course you are about to begin will provide information, tools, insights about cancer, treatments and side effects, and how yoga is responsive to a cancer survivor's experience. This course will demystify preconceptions and misinformation about both cancer and yoga. You will learn what is beneficial and what should be avoided. Most importantly, you will understand a cancer survivor's true needs, how yoga becomes essential in treatment recovery, and what it takes to manage a healthy life post-cancer diagnosis.

As research on cancer and yoga is still in their infancy and will continue to evolve, compassion and curiosity remain essential tools. Besides learning facts, dispelling myths, and gaining knowledge, the goal of this course is to ignite your critical thinking. It will be your ultimate asset. Solutions for each cancer survivor's side effects paired with mental and physical challenges cannot be predetermined. They have to be found.

Real solutions evolve through observation, the willingness to unlearn preconceived ideas, and concepts that do not best serve this population. Genuine compassion comes through knowledge and understanding.

Embrace the curiosity and inspiration that led you to this course. Together, we will witness and participate in the further evolution of Oncology Yoga to better serve cancer survivors. Let's work together to create a future where Oncology Yoga is prescribed and available to all those touched by cancer.



We have important work to do. Let's get started!

Best,

Tari Prinster

Founder, yoga4cancer LLC and yoga4cancer Foundation

yoga4cancer™ Vision

**Oncology Yoga is prescribed and available
for all those touched by cancer.**

CONTENTS

Learning Objectives:

- Provide the grounding concepts and requirements of the yoga4cancer Methodology
- Identify and challenge pre-existing misconceptions that prevent safe and effective support
- Learn initial ways to build a credible and authentic teaching voice
- Participate in your first yoga4cancer Class

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Module #1

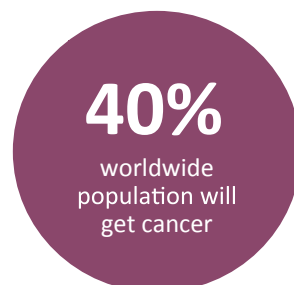
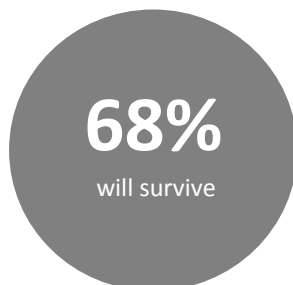
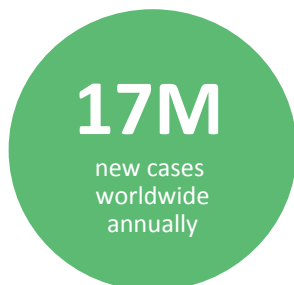
THE CASE FOR ONCOLOGY YOGA

The cancer survivor population is large and growing.

Cancer is not going to go away. In 2018, there were 17.0 million new cancer cases and 9.5 million cancer deaths worldwide. 16.0 million cases were in the US alone.¹ By 2040, the global burden is projected to rise to 27.5 million new cancer cases yearly, with an increase 22.2 million of cancer survivors by 2030.²

The good news is that mortality rates have been consistently declining over the past few decades. From 1991 to 2016, the cancer death rate decreased by 27% in the US.³ This overall rate varies by country, but the decline in mortality is consistent, thanks to the improved ways to prevent, detect and treat cancers. The large majority of cancer patients survive their prognostic due to increased incidence and decline in mortality, which continues to grow each year.

Cancer in Our World



¹ International Agency of Research on Cancer (IARC) (2018). Retrieved from <https://www.cancer.org/research/cancer-facts-statistics/global.html>

² National Cancer Institute (2020). Cancer Statistics. Retrieved from <https://www.cancer.gov/about-cancer/understanding/statistics>

³ American Cancer Society (2016). Retrieved from <https://www.cancer.org/latest-news/understanding-cancer-death-rates.html>

Cancer survivors have specific challenges and needs linked to both their physical and emotional state. Often, these unique conditions are side effects that persist for decades after initial diagnosis and treatment. While the treatments are successful at stopping cancer, the lasting impact can require daily management. Unmanaged side effects can affect not only daily functioning and quality of life but also impact the adherence to treatment protocols and patient outcomes overall. Finally, survivors are more susceptible to other illnesses and more likely to have a cancer recurrence. Combined, these factors lead to an increased risk of mortality. Therefore, managing the side effects and the general health of cancer patients and survivors is the foundation of yoga4cancer.

A growing body of research and literature gives evidence to what the yogis have known for centuries: yoga is good for health and longevity. Research shows that yoga has clinically meaningful outcomes for the general population, including many cancer survivors. For example, reviews found that yoga interventions were more effective than psychosocial (group therapy) and educational interventions in reducing depression, anxiety, and fatigue. A 2010 study found that yoga is as effective or better than other forms of exercise to improve various health-related outcomes, including muscle strength and flexibility.⁴

Cancer Survivorship guidelines - issued by the American Cancer Society and the Department of Health and Human Services - provide movement and exercises to help cancer survivors manage side effects and improve long-term health. Both organizations have recommended a **minimum of 150 minutes** of moderate exercise, including active yoga every week, to enhance health and life quality while preventing cancer recurrence. Sadly, 66.4% of cancer survivors do not achieve these exercise guidelines.⁵

Survivorship guidelines



Recommends **150 to 320 minutes** of moderate exercise every week (depending on obesity level)

Yoga is recommended.

Annual report since 2014



Recommends **150 to 320 minutes** of moderate exercise every week (depending on obesity level)

Active yoga is recommended.

(Vinyasa is highlighted.)

Nov 2018 Recommendation

An effective Oncology Yoga class needs to achieve these recommendations. Without doing so, they fail the cancer survivor, and short-chain yoga's proven benefits. The 150-minute minimum is a cornerstone of yoga4cancer method, programming, and advocacy.

The word is getting out about the guidelines and the value of yoga for cancer patients and survivors. More cancer patients seek support from yoga professionals, and more healthcare providers recommend yoga to their oncology patients. But working with this community requires specific knowledge and experience. Their challenges and needs are unique. The growing population of cancer survivors needs more educated Oncology Yoga professionals and other healthcare providers.

What is Oncology Yoga?

Oncology Yoga is a unique yoga method designed to address cancer patients' and survivors' specific physical and emotional needs. It applies to all cancer types and stages.

The comprehensive practice matches specific poses and sequences with the breath to mitigate side effects, support the immune system and achieve healthcare guidelines for movement.

⁴ Kytte, J., Roff, C., Sulik, G. (2018). Yoga Interventions for Cancer Patients and Survivors. [White paper].

⁵ Troeschel, Leach, Shuval, Stein, Patel. Preventing Chronic Disease (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5985854/#>)



Module #1

DEVELOPING CRITICAL THINKING

There is no formula or exclusive set of poses for a safe and effective Oncology Yoga practice. Too often, compassionate yoga professionals request a 'list of poses' for specific types of cancers. While the professional's motivation is understandable, it is unwise to think that we can prescribe a universal sequence to any cancer patient to provide relief, comfort, and healing. Every cancer is different. Every individual is different. Each person's response to treatment is different. Cancer survivors feel differently on any given day. That is why safe and effective yoga requires critical thinking skills to adjust and modify for all occasions as they arise.

“Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime.” — **Maimonides**

This program aims to provide skills to support any cancer patient and survivor. It will not deliver a static set of poses but instead provides the facts, skills, and experience to evaluate individual circumstances and apply various solutions. The entire program is designed to help problem solve and create effective solutions.

This training will ask difficult questions:

- to help you re-evaluate what you know
- to unlearn some of what you think you know, and
- to encourage critical thinking.

Critical thinking will prepare you. The experience will support you.



Module #2

IMMUNITY AND HUMAN BODY SYSTEMS

Potential cancer-influencing agents are everywhere, but not everyone gets cancer. Whether the threat of cancer comes from the environment, behavior patterns, or genetics, why do some people get cancer and some do not? How are cancerous cells able to multiply and spread unchecked throughout the body? Because pre-cancerous cells exist in everyone at some point in time, especially as we get older, how does the body identify and destroy them? The study of Human Body Systems and Immunity holds the key to greater understanding.

The Immune System: Layered Defenses of Increasing Specificity

The immune system is a vast network of organs, cells, tissues, and body systems working together to protect the body from pathogens. Immunity describes the body's ability to fight off these pathogens.²⁷ A pathogen is any agent that causes disease in the body, like a virus, substance, or microorganism. Understanding how each body system contributes to immunity is the key to understanding how Oncology Yoga supports healthy immune system function.

The job of the immune system is to protect the body in four steps:

1. Bar Entry
2. Detect a Threat
3. Identify the Threat
4. Eliminate the Threat

The immune system discriminates between foreign tissue and non-foreign tissue, or “self” versus “non-self.” Foreign invaders include viruses and tiny organisms such as bacteria, parasites, and fungi that can cause infection.

²⁷ Newman, T. (2018). How the Immune System Works. Retrieved from <https://www.medicalnewstoday.com/articles/320101.php>

Cancer is more difficult to detect. To the body, cancer cells do not always look like strangers. Because cancer cells mutate from normal cells, they can escape detection and elimination by the body's defenders. When this happens, cancer develops.

The immune system distinguishes between normal cells and abnormal cells by recognizing “danger cues” or danger-associated molecular patterns (DAMPs). Infectious microbes such as viruses and bacteria also release a set of signals recognized by the immune system called pathogen-associated molecular patterns (PAMPs). When a threat is detected — either from DAMPs or PAMPs — the immune system responds.²⁸

If the immune system can recognize danger cues and discern normal cells from abnormal cells, how are some cancerous cells able to slip past the immune system's detectives? The answer remains elusive which can be an unexplainable blip in immunity allowing cancer to develop within the body. Researchers are studying immune system functions to understand the system-wide response to infections, pathogens, and cancer. The goal is to find ways to optimize immunity.

Immune system research is always evolving, just like cancer and treatment research. And in many ways, the two overlap - each informing the other.

Where is the Immune System?

Immunity is the result of cooperative body systems. Rather than considering the immune system as one specific organ or place within the body, a distributed network of body systems works together. Within this network, each subsystem has a distinct role to play. Understanding these interlocking systems and then seeing how yoga improves system functions is the cornerstone of the yoga4cancer methodology.

Innate and Adaptive Immunity: Human Body Systems, when working together, play unique and vital roles in immune health.

Equally important is to understand two parts of the immune system:

- Innate Immune System, the one each person is born with.
- Adaptive Immune System, which is developed when the body is exposed to microbes or substances within the environment.²⁹

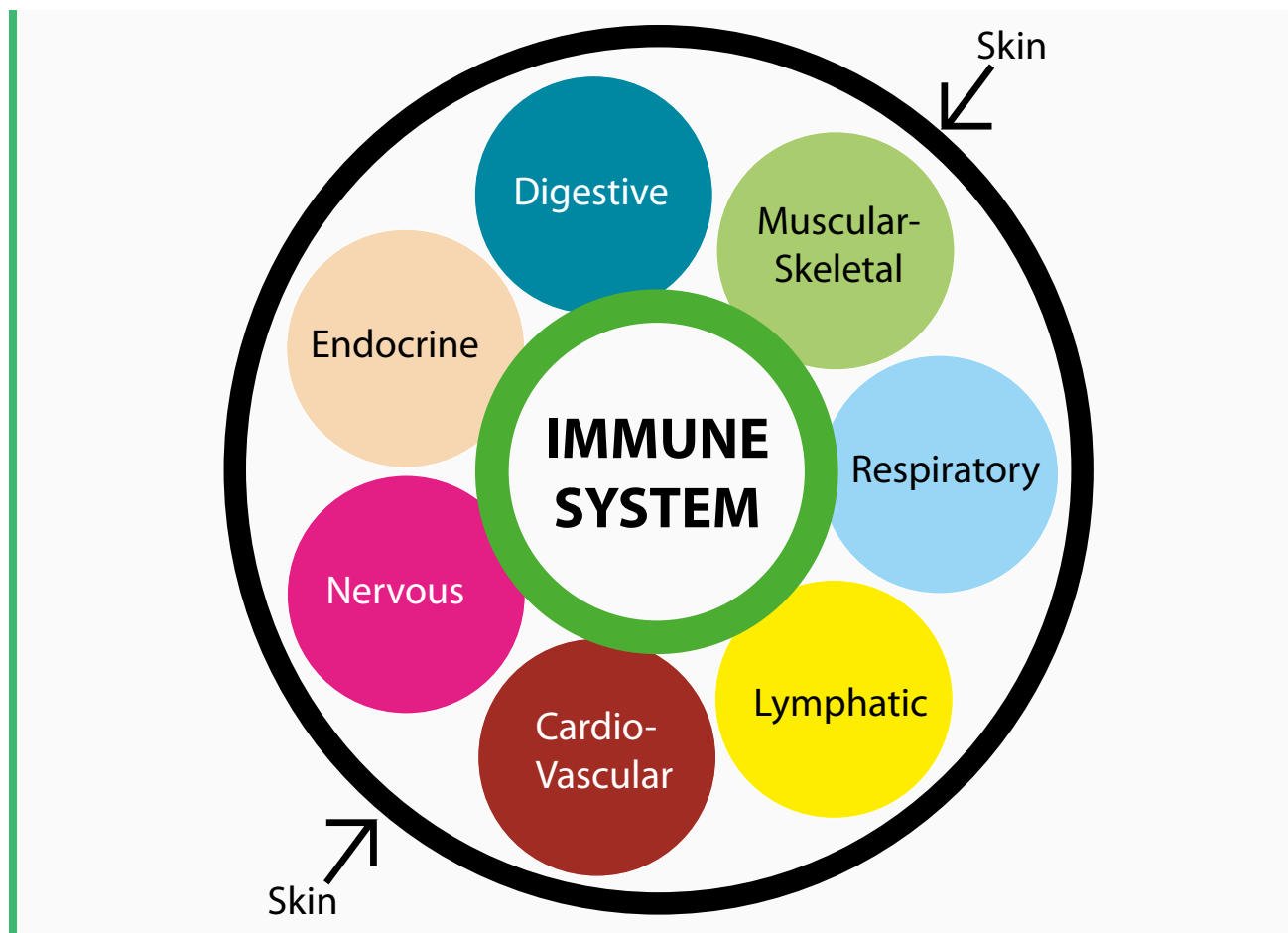
²⁸ National Institute of Allergy and Infectious Diseases. (2013). Overview of the Immune System. Retrieved from <https://www.niaid.nih.gov/research/immune-system-overview>

²⁹ The Johns Hopkins University. (2020). The Immune System. Retrieved from <https://www.hopkinsmedicine.org/health/conditions-and-diseases/the-immune-system>

Innate Immune System. The innate immune system is present in the body from birth, is rapidly responsive, and is used against microbes. The system includes physical and chemical barriers like the skin, mucus membranes, and body temperature. Phagocytes and plasma proteins are also involved.³⁰ The redness and sudden swelling from a bee sting are example of the rapid response.

Adaptive Immune System. The adaptive immune system cannot be inherited. It is created in response to exposure to a foreign substance or pathogen. With the innate immune system’s help, the adaptive immune system produces antibodies to protect the body from a specific invader. The system is comprised of the body’s B cells and T cells. It can remember specific pathogens encountered before. An example of the adaptive immune system at work is the body’s response to the chickenpox vaccine. The body will recognize the pathogen and create antibodies to protect the body from that disease

A closer look at the human body systems will reveal the brilliance behind the body’s capacity to protect itself.

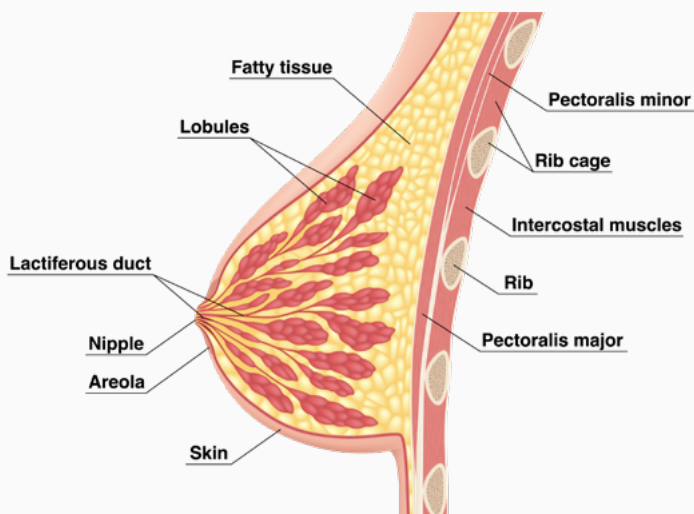


³⁰ Aryal, S. (2018). Difference Between Innate and Adaptive Immunity. Retrieved from <https://microbiologyinfo.com/difference-between-innate-and-adaptive-immunity/>

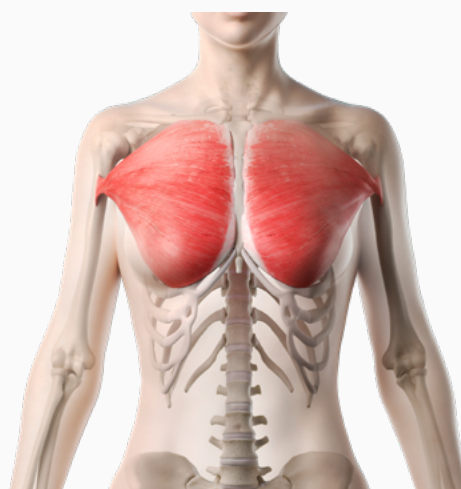
Following a mastectomy, patients no longer have breast tissue to cover implant deformities. This makes it difficult to achieve a natural-looking final breast reconstruction. In addition, breast reconstruction patients complain that their implants feel “cold” since the skin left to cover the implant can be quite thin.

Loss of sensation is also common for breast reconstruction patients. Sensory nerves can be severed when the breast tissue is removed. Sadly, most women who undergo implant reconstruction will experience a loss of breast sensation. This is not something breast augmentation patients typically experience, as only a small hidden incision is made to place the implant while no breast tissue is removed. Breast reconstruction is definitely not a “boob job”.

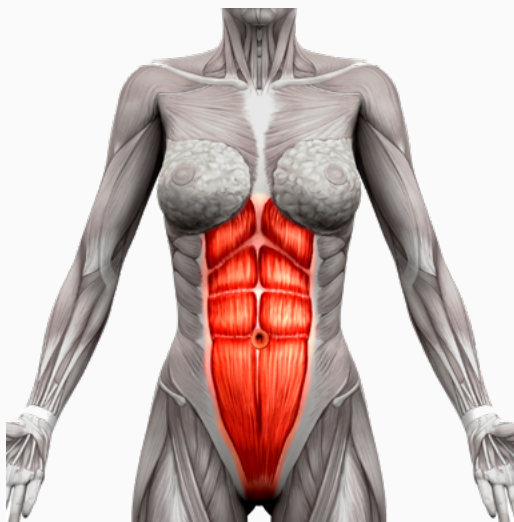
ANATOMY OF BREAST



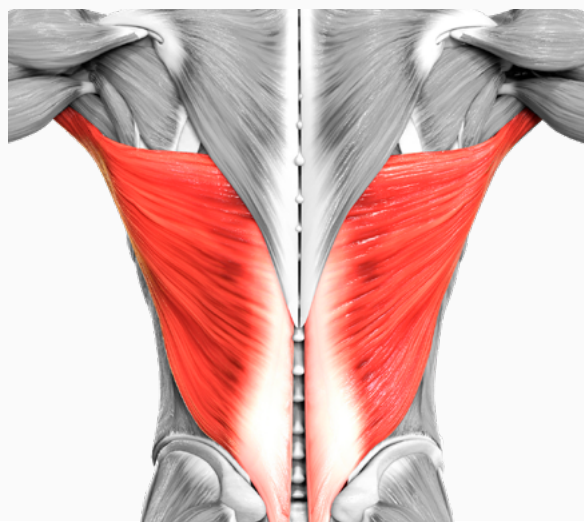
PECTORAL MUSCLE



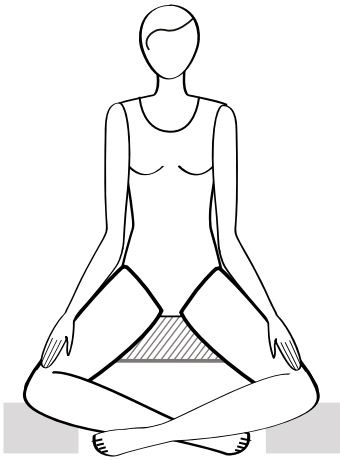
ABDOMINIS RECTUS MUSCLE



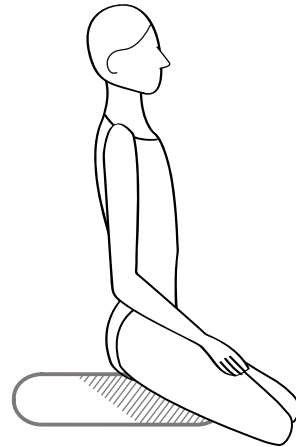
LATISSIMUS DORSI MUSCLE



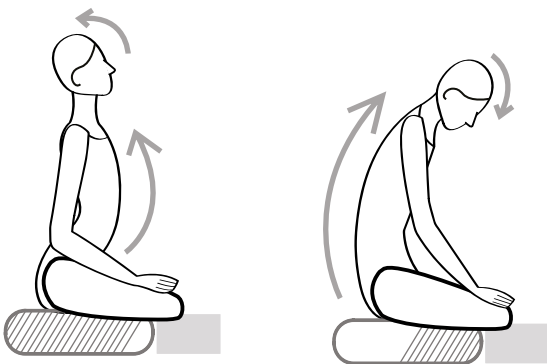
POSES SEATED ON THE MAT



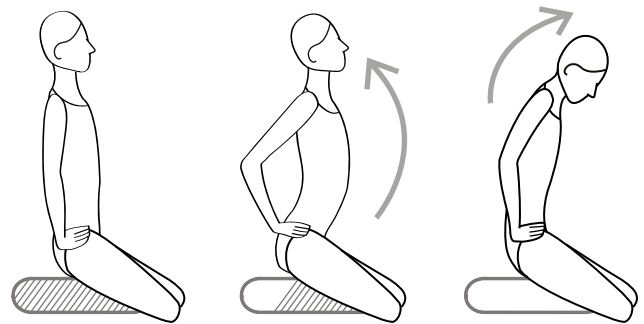
1. Cross-legged Seat



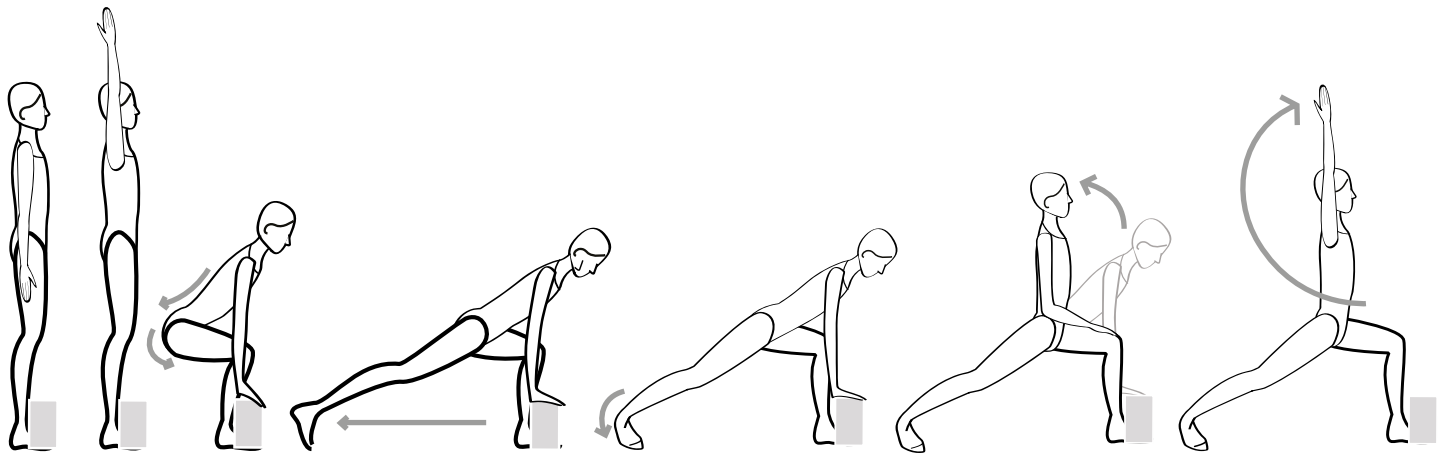
2. Cross-legged Seat - Side View



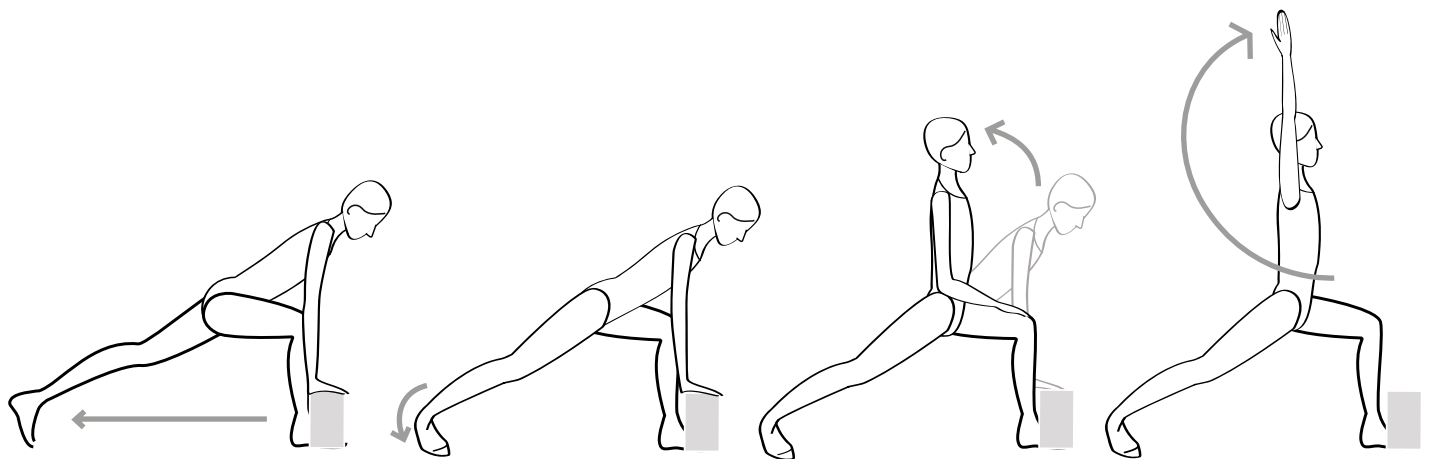
3. Seated Cat-Cow - Side View



4. Seated Pelvic Tilt



60. Stepback Sun Salutation Vinyasa



61. Warrior 1 - Vinyasa