



ANATOMY FOR

BACKBENDS

AND

TWISTS



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HOW TO USE THIS BOOK

Practicing yoga is like passing through a series of doors, with each door revealing new possibilities in the poses. The key to unlocking the first door is understanding the joint positions. This understanding can be used to identify the muscles that create the form of the pose and those that stretch. The key to positioning the joints is engaging the correct muscles. This begins with the prime movers. Engage the prime movers and the bones will align. The key to deepening the asanas is using your understanding of physiology to lengthen the muscles that stretch in the pose. Focus on these keys and the postures will automatically fall into place and manifest the beneficial effects of yoga. These include improved flexibility, heightened awareness, a sense of well-being, and deep relaxation.

The Mat Comparison series is a set of modular books. Each book focuses on a specific pose category and contains the following:

- **The Key Concepts:** a description of biomechanical and physiological principles with applications for specific poses.
- **The Bandha Yoga Codes:** a simple five-step process that can be used to improve your flexibility, strength, and precision in the asanas.
- **The Pose Section:** a detailed description of the individual postures.
- **Movement Index:** explanations of body movement and tables listing the muscles associated with each movement.
- **Anatomy Index:** a visual listing of bones, ligaments, and muscles (showing the origins, insertions, and actions of each).
- **Glossary of Terms**
- **Sanskrit Pronunciation and Pose Index**
- **English Pose Index**



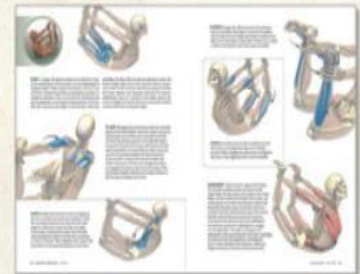
FIGURE 1 The Key Concepts show you how to apply biomechanics and physiology to your poses. Read this section first and return here often to refresh your knowledge.

FIGURE 2 The opening page for each pose illustrates the basic joint actions and positions of the body for that particular asana. Sanskrit and English names are provided for each posture. Use this page to assist you in learning the basic form of the pose and other concise details.



FIGURE 3 Use the preparatory section as a guide for how to enter the pose. If you are new to yoga or feel a bit stiff, use one of these modifications for your practice. In general, the preparatory poses affect the same muscle groups as the final asana. You will benefit from the pose no matter which variation you practice.

FIGURE 4 Each pose comes with a series of steps for engaging the muscles that position the joints, concluding with a summary of the muscles that stretch. Muscles that contract are colored different shades of blue (with the prime movers deep blue), and those that stretch are red. Use the pose section to master the anatomy of any given asana.



KEY CONCEPT

AGONIST/ANTAGONIST RELATIONSHIPS: RECIPROCAL INHIBITION

Agonist/antagonist relationships form biomechanical and physiological focal points throughout the body in yoga poses. The angles and positions of the joints create the form of a pose. Agonist muscles contract to decrease the angle of the joint, while on the other side of the joint, the antagonist muscle stretches and the angle increases. Understanding this relationship is essential to sculpting any given pose.

Once you have identified the muscle groups surrounding each of the major joints, focus on contracting specific muscles to create and refine the form of the pose. Move your focus around the body, activating the agonist muscles to biomechanically triangulate their antagonists (as described in the section entitled Locating the Focus of a Pose). Contracting a muscle moves its origin and insertion closer to one another. The corresponding origin and insertion of that muscle's antagonist move farther apart, lengthening the muscle.

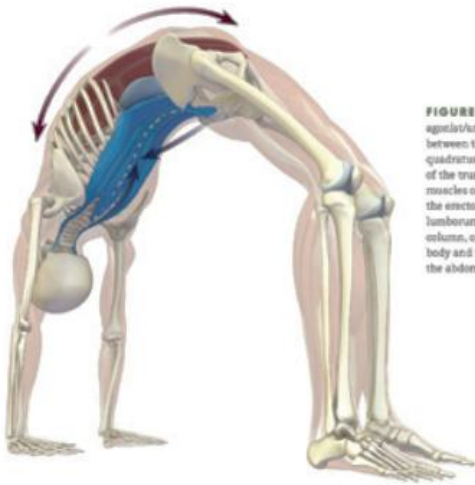


FIGURE 1 Illustrates the agonist/antagonist relationship between the erector spinae and quadratus lumborum on the back of the trunk and the abdominal muscles on the front. Contracting the erector spinae and quadratus lumborum extends the spinal column, opening the front of the body and focusing the stretch on the abdominal muscles.

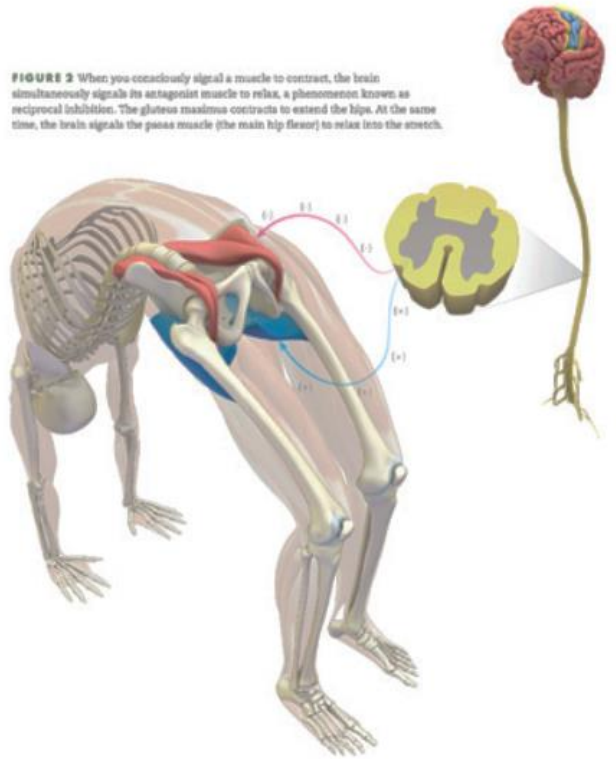


FIGURE 2 When you consciously signal a muscle to contract, the brain simultaneously signals its antagonist muscle to relax, a phenomenon known as reciprocal inhibition. The gluteus maximus contracts to extend the hips. At the same time, the brain signals the psoas muscle (the main hip flexor) to relax into the stretch.