

Yoga and Tai' Chi Ch'uan

Physiological Benefits

- 🕒 Stable autonomic nervous system equilibrium, with a tendency toward parasympathetic nervous system dominance rather than the usual stress-induced sympathetic nervous system dominance
- 🕒 Pulse rate decreases
- 🕒 Respiratory rate decreases
- 🕒 Blood pressure decreases
- 🕒 Galvanic Skin Response (GSR) increases (skins electrical conductivity)
- 🕒 EEG - alpha waves increase (theta, delta, and beta waves also increase during various stages of meditation)
- 🕒 Cardiovascular efficiency increases
- 🕒 Respiratory efficiency increases (respiratory amplitude and smoothness increase, tidal volume increases, vital capacity increases, breath-holding time increases)
- 🕒 Gastrointestinal function normalizes
- 🕒 Endocrine function normalizes
- 🕒 Musculoskeletal flexibility and joint range of motion increase
- 🕒 Posture improves
- 🕒 Strength and resiliency increase
- 🕒 Endurance increases
- 🕒 Energy level increases
- 🕒 Weight normalizes
- 🕒 Sleep improves
- 🕒 Immunity increases
- 🕒 Pain decreases

Psychological Benefits

- 🕒 Somatic and kinesthetic awareness increase
(physical sensations sense of movement)
- 🕒 Mood improves and subjective well-being increases
- 🕒 Self-acceptance and self-actualization increase
- 🕒 Social adjustment increases

- 🕒 Anxiety and depression decrease
- 🕒 Hostility decreases
- 🕒 Psychomotor functions improve:
 - Grip strength increases
 - Dexterity and fine skills improve
 - Eye-hand coordination improves
 - Choice reaction time improves
 - Steadiness improves
 - Depth perception improves
 - Balance improves
- 🕒 Cognitive function improves:
 - Attention improves
 - Concentration improves
 - Memory improves
 - Learning efficiency improves
 - Depth perception improves

Biochemical Effects

The biochemical profile improves, indicating an anti-stress and antioxidant effect, important in the prevention of degenerative diseases.

- 🕒 Glucose decreases
- 🕒 Sodium decreases
- 🕒 Total cholesterol decreases
- 🕒 Triglycerides decrease
- 🕒 HDL cholesterol increases (good Cholesterol)
- 🕒 LDL cholesterol decreases (bad Cholesterol)
- 🕒 Hemoglobin increases
- 🕒 Lymphocyte count increases
- 🕒 Thyroxin increases

- ⌚ Vitamin C increases
- ⌚ Oxygen levels in the brain increase

Yoga / tai chi

Parasympathetic nervous system dominates
 Subcortical regions of brain dominate
 Slow dynamic and static movements
 Normalization of muscle tone
 Low risk of injuring muscles and ligaments
 Effort is minimized, relaxed
 Energizing (breathing is natural or controlled)
 Balanced activity of opposing muscle groups
 Noncompetitive, process-oriented
 Awareness is internal (focus is on breath and the infinite)
 Limitless possibilities for growth in self-awareness

Exercise

Sympathetic nervous system dominates
 Cortical regions of brain dominate
 Rapid forceful movements
 Increased muscle tension
 High risk of injury
 Effort is maximized
 Fatiguing (breathing is taxed)
 Imbalanced activity of opposing groups
 Competitive, goal-oriented
 Awareness is external (focus is on reaching the toes, reaching the finish line, etc.)
 Boredom factor

