## ABOUT THE THERAPIST

#### Kirsten Carmichael DPT, CSCS

**KIRSTEN'S CONCUSSION EXPERIENCE BEGAN IN 2010 IN THE SAN** FRANCISCO AREA WORKING FOR THE GIANTS AND 49ERS TEAM DOCTOR AS PART OF THE CONCUSSION CLINIC. SHE CONTINUED TO PURSUE FURTHER EDUCATION AND BECAME A PART OF THE COMPLETE CONCUSSION MANAGEMENT NETWORK. SHE IS EXCITED TO OFFER A MULTIDISCIPLINARY APPROACH, WORKING WITH A GREAT TEAM OF PROVIDERS IN THE AREA. HER PHILOSOPHY IS THAT IT IS NEVER TOO LATE TO SEEK TREATMENT. HER OTHER SPECIAL INTERESTS INCLUDE SPORTS MEDICINE, STRENGTH AND CONDITIONING, AND ORTHOPEDIC/POST-OPERATIVE REHABILITATION.



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### CONTACT US

PLEASE CONTACT US USING THE SECURE COMMUNICATION PORTAL ON OUR WEBSITE:

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# CONCUSSION SERVICES

# WHAT IS A CONCUSSION?

TREATMENT OVERVIEW

# PRE-INJURY: BASELINE TESTING

A CONCUSSION IS A BRAIN INJURY CAUSED BY ACCELERATION OR DECELERATION OF THE BRAIN WITHIN THE SKULL FOLLOWING A SIGNIFICANT IMPACT TO THE HEAD OR ELSEWHERE ON

THE BODY. THE IMPACT CAUSES A BIOCHEMICAL IMBALANCE WITHIN THE BRAIN CELLS RESULTING IN DECREASED BLOOD FLOW AND TEMPORARY ENERGY DEFICITS WITHIN THE BRAIN. SYMPTOMS MAY INCLUDE LOSS OF CONSCIOUSNESS, HEADACHE, PRESSURE IN HEAD, NECK PAIN, NAUSEA OR VOMITING, DIZZINESS, OR BALANCE PROBLEMS, AMONG OTHERS.



WE OFFER CONCUSSION TREATMENT SERVICES & STRATEGIES:

- EXERTIONAL TESTING FOR RETURN-TO-SPORT & SUB-SYMPTOM THRESHOLD
- VESTIBULAR, OCULO-MOTOR, AND CERVICAL SPINE REHABILITATION
- BALANCE, REACTION TIME, VISUAL PROCESSING, & NEUROCOGNITIVE TESTING
- EDUCATIONAL RESOURCES



MULTIMODAL PRE-SEASON TESTING IS A SERIES OF PHYSICAL AND COGNITIVE TESTS THAT PROVIDES A PRE-INJURY OVERVIEW OF HEALTHY BRAIN FUNCTION. THESE TESTS CAN OFFER HEALTHCARE PROVIDERS WITH AN OBJECTIVE BENCHMARK FOR COMPARISON SHOULD A PATIENT SUSTAIN A CONCUSSION.

HAVING VALUABLE BASELINE INFORMATION MAY HELP PRACTITIONERS MAKE SAFE RETURN TO PLAY DECISIONS.





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