

CTE

Chronic Traumatic Encephalopathy



01 CTE is a brain disease that could impair brain function, negatively affecting memory, thinking, emotions and movement.



02 Symptoms of CTE can begin years after receiving repetitive hits to the head.



03 More frequent hits over a longer period of time may increase your risk for CTE.



04 Scientists are still learning about CTE but think there may be other risk factors for CTE including genetics and drug/alcohol use.



05 Repetitive hits to the head, even when they don't cause a concussion, are a risk factor for developing CTE.



06 CTE currently can only be diagnosed after death by looking at the brain under a microscope.

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Memory Problems - Mood swings - Depression - Anxiety - Frustration
- Difficulty thinking - Slurred speech - Parkinsonism



Currently there is no cure for CTE but doctors can treat the symptoms

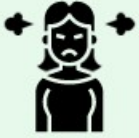


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CTE

SYMPTOMS



FRUSTRATION



DEPRESSION



MOOD SWINGS



ANXIETY



DIFFICULT THINKING



MEMORY PROBLEMS



SLURRED SPEECH



PARKINSONISM

THERE IS NO CURE FOR CTE YET
BUT DOCTORS CAN TREAT THE SYMPTOMS



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CONCUSSION BASICS



1 A concussion is a type of brain injury

2 You don't need to be knocked out to have a concussion

3 If you have a concussion in training...STOP

4 Repeat head blows before recovery from a concussion could be dangerous and could slow your recovery

5 Concussions can happen in competition and in training

6 After a hit to the head, neck, body or takedown you can suffer a concussion

7 Concussions are not seen on standard brain imaging (CAT scan/MRI)



POSSIBLE SYMPTOMS

- Depression
- Anxiety
- Irritability
- Headache
- Nausea
- Vomiting
- Impaired thinking
- Slow reflexes
- Blurred Vision
- Balance issues
- Sleep Disturbances
- Coordination Issues



RETURN

1

You can go back to light activity a few days later with things like swimming, running and biking.
NO CONTACT TRAINING

2

Training intensity should not be increased if it makes your concussion symptoms worse

3

You should **NOT RETURN** to contact training until all concussion **SYMPTOMS ARE GONE** and you have been cleared by a doctor



HELP

If you have a concussion you should see a doctor:

- Before you return to contact training/sparring
- If your symptoms change for the worse
- If your symptoms last more than 7-10 days

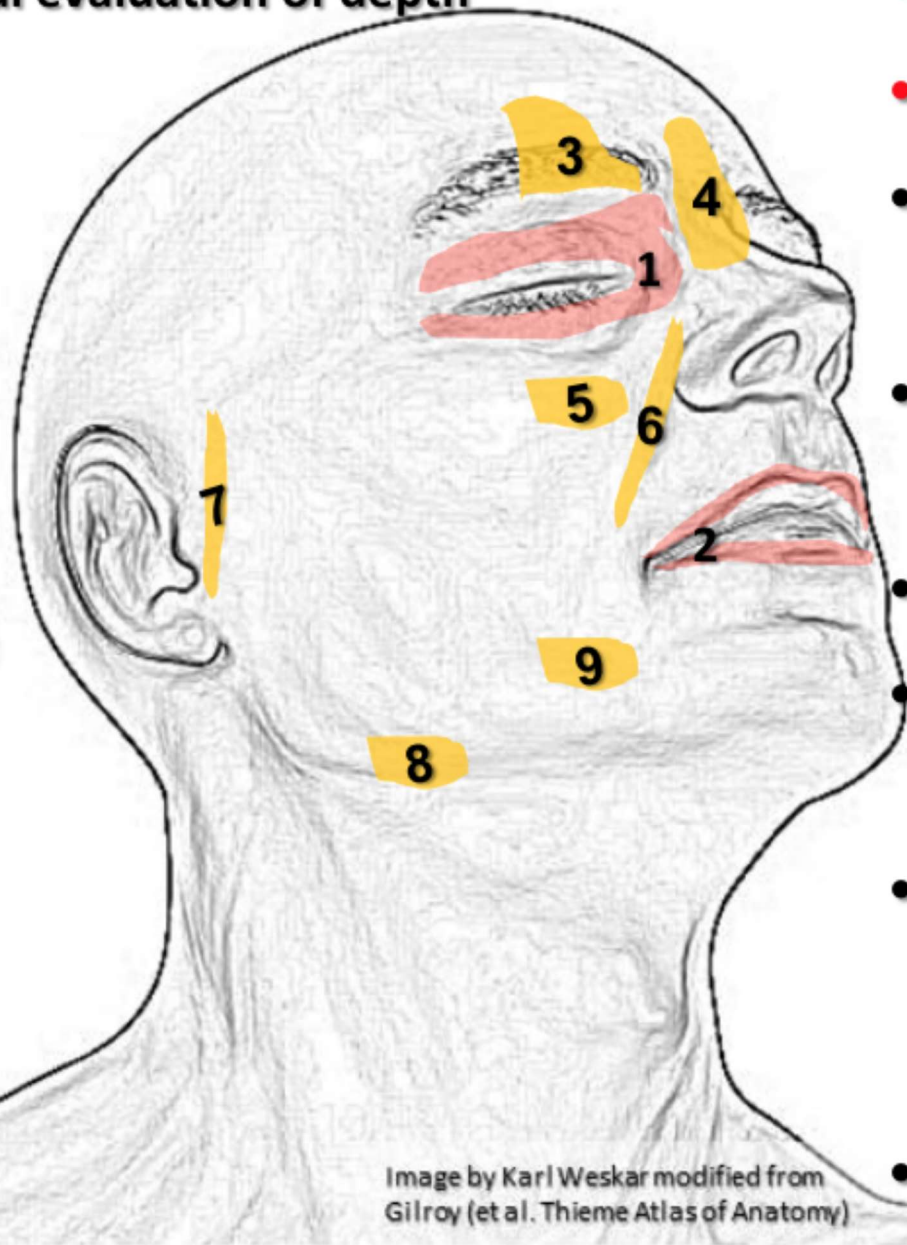
IF YOU NEED HELP WITH DOCTORS AND MEDICALS CONTACT @FIGHTINGFOUNDATION



Laceration Zones

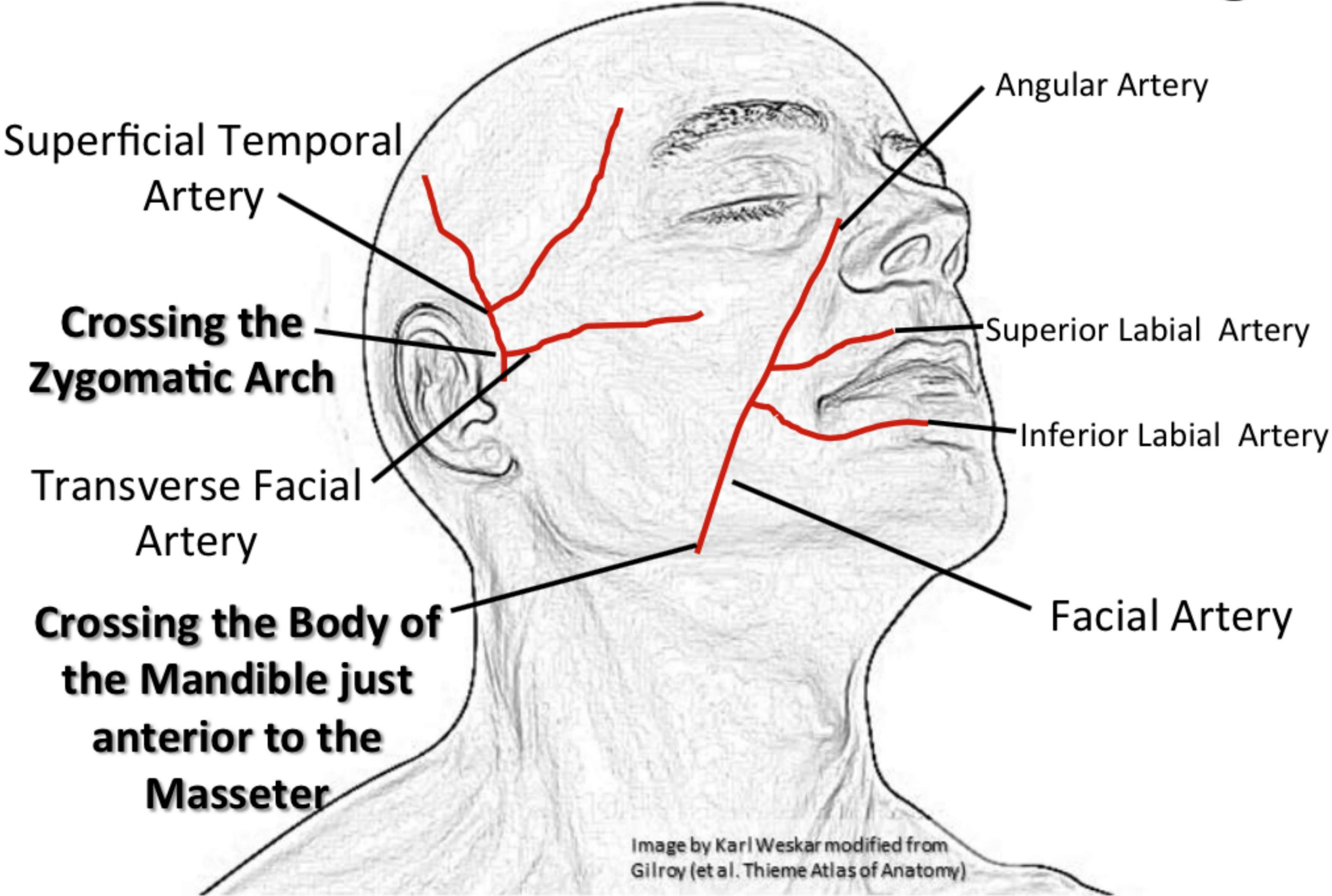
Consider ending bout

Careful evaluation of depth



- **One – tarsal plate, lacrimal sac**
- **Two - vermilion border**
- **Three – supraorbital / supratrochlear nerves**
- **Four – nasal bridge, FRACTURE**
- **Five – infraorbital nerve**
- **Six – nasolabial fold with facial artery**
- **Seven — superficial temporal artery, facial nerve (at the zygomatic bone)**
- **Eight - facial artery at masseter**
- **Nine – mental nerve**

Pressure Points to Stop Bleeding





THE DANGERS OF CUTTING WEIGHT AND DEHYDRATING

Unhealthy and dangerous weight loss practices continue to be a serious problem in combat sports. One recent study found that 39% of MMA fighters were entering competition in a dehydrated state. Heat illness and death in athletes have already happened in the sports of wrestling and MMA. It's been shown that excessive weight loss, rapid weight loss, and repeated cycling of weight gain/loss causes decreased performance, hormonal imbalance, decreased nutrition, and increased injury risk. Other life-threatening problems associated with improper weight loss and dehydration include:

- **Decreased Muscle Strength and Endurance:** Decreased blood flow to muscles makes them work less well.
- **Decreased Heart and Cardiovascular Function:** The heart works harder *and* less efficiently.
- **Reduced Energy Utilization, Nutrient Exchange and Acidosis:** With decreased blood flow to tissues nutrients don't get delivered, and the body's waste products do not get removed as well. A buildup of acid occurs which changes cells' functions in the body.
- **Heat Illness:** This takes on four forms: heat cramps, heat syncope (loss of consciousness), heat exhaustion, and heat stroke (which may be fatal). Dehydration results in decreased blood flow to skin and muscles. This is followed by decreased ability to regulate body temperature. The ability to sweat becomes impaired and core body temperature can rise. This increases the threat of all of these to poorly hydrated athletes doing strenuous workouts.
- **Decreased Kidney Function:** Dehydration leads to decreased kidney blood flow and decreased kidney function. This contributes to the problems listed in the points here, in addition to decreased urine output, concentrated urine, and leakage of protein into the urine. (It is not known if these changes can result in permanent kidney damage.)
- **Electrolyte Problems:** Decreased kidney function results in imbalances of electrolytes such as unhealthy increases in potassium and sodium.
- **Mood Swings and Mental Changes:** All of the above contribute to increased mood swings, poor concentration and focus, disorientation and other mental changes.
- **Eye Trouble:** Dehydration can cause blurred vision and dry eyes.
- **Increased Risk of Brain Injury:** There are likely increased risks of brain bleeding and concussion.

DON'T:

- Don't use extreme methods for making weight such as excessive heat methods (rubberized suits, steam rooms, saunas), excessive intense bouts of exercise, vomiting, laxatives and diuretics.
- Don't use dehydration as a mainstay of making weight. In addition to the above, it puts you at risk of improper rehydration techniques — when, in reality, proper re-hydration takes several hours to days. (Many cases of intravenous fluids being used for rehydration after weigh-ins have been reported – this is a doping violation with several organizations.)

DO:

- Commit to year-round proper diet and training for proper weight control and body composition.
- By maintaining your weight year round near an appropriate competition weight and not competing in a weight class outside your appropriate weight class you will help avoid large swings in weight.
- Maintain a good state of hydration by drinking fluid throughout the day and staying hydrated during workouts.
- Follow nutritional programs that meet your needs for adequate amounts of calories from a balanced diet high in healthy carbohydrates, the minimum requirement of fat, and appropriate amounts of protein.
- Be wary of nutritional supplements as they are not regulated by the FDA and some have been shown to be harmful.