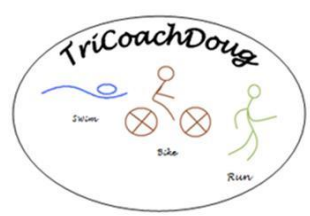


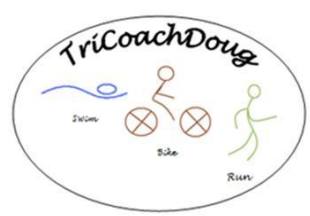
# Winter Swimming At Tattershall Lake





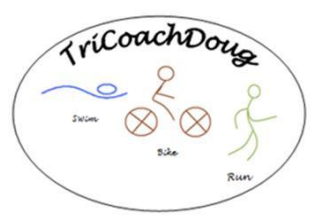
# Introduction

- What is this session about?
- What is cold water?
- Quick look at the benefits
- The dangers
- The dangers - Hypothermia
- The swim itself
- Training for winter swimming
- 10 Golden Rules
- Suggested kit



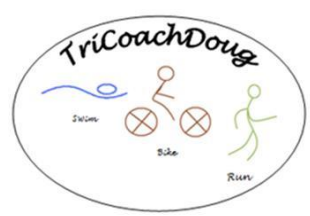
# What is this session about?

- A Formal/Informal get together
  - Formal part!
    - Insurance
      - A requirements stipulated by the insurers
  - Health and Safety
    - Risks involved
    - Procedures to take
    - Signs to look for – getting cold/time to get out
    - When to and not to swim
    - Ultimately so everyone who swims stays safe.



# What is this session about?

- A Formal/Informal get together
  - Informal part!
    - Piece of mind
      - Put your mind at ease
      - Put my mind at ease
  - Informal get together
    - Sharing of knowledge from the more experienced ones

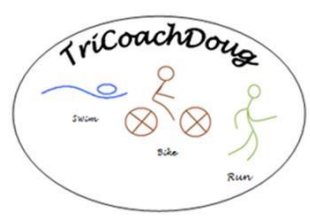


# What is cold water?

- BTF rules for open water swimming

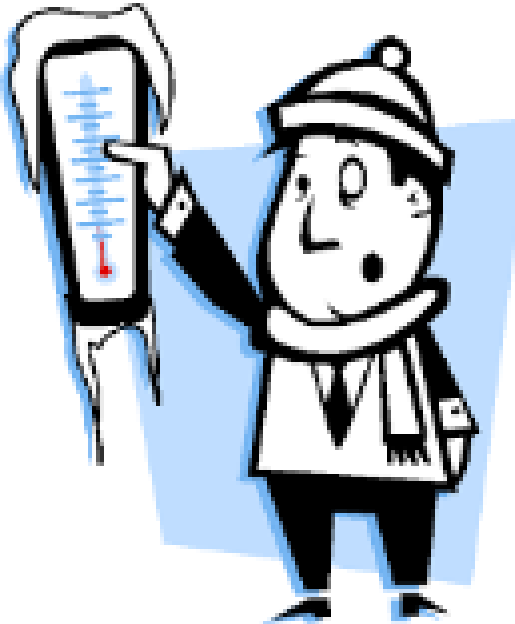


- ✓ 11° or below it's recommended that no swimming take place – tool cold
- ✓ This is when cold water swimming starts here at Tattershall Lakes
- ✓ However, ASA Open water swimming holds races in colder conditions
- ✓ No wetsuits allowed.



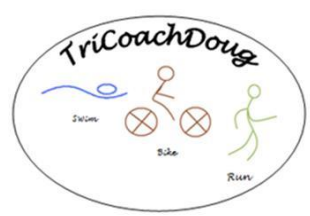
# What is cold water?

- Some thought about water temperatures



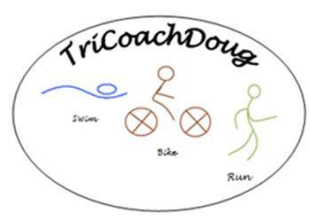
- ✓ Poll gave the following response:
  - ✓ Taken from: Introducing a precise open water swimming temperature scale

Temp Under	%
17.5°	24
15°	20
22.5°	17
20°	15
12.5°	14
10°	7
5°	0



# Quick look at the Benefits

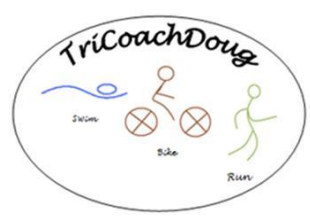
- Boosts your immune system
  - The sudden and drastic change in temperature constitutes an attack, and whilst “attacking” your own body may not sound like a good thing, it is, in fact, quite the good thing.
- Natural high
  - The immersion in cold water will give you an endorphin rush



# Quick look at the Benefits

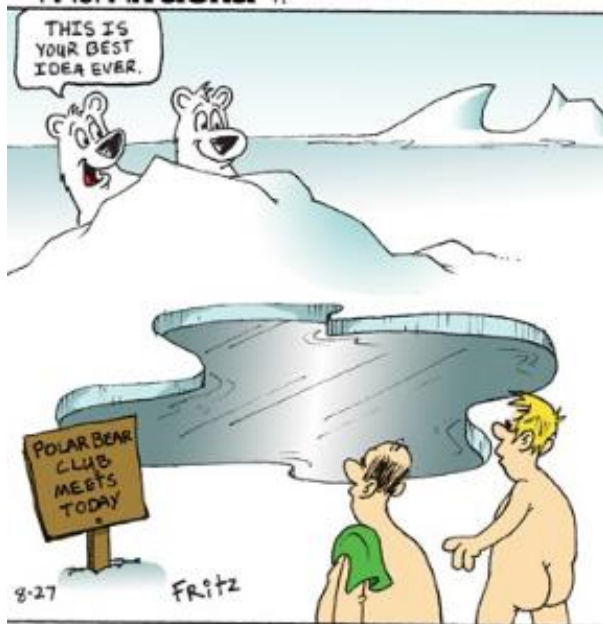
- Gets your blood pumping
  - Being hot brings blood to surface. Being cold sends it to your organs. Both extremes work your heart like a pump. But why is increased blood flow good for you?
  - Helps flush your circulation - pushing blood through all your capillaries, veins and arteries.
- Burns calories
  - Swimming in cold water will make your body work twice as hard to keep you warm and burn more calories in the process. For this sort of exercise, fat is your body's primary source of energy and the increased work rate will increase your metabolism in the long run





# The dangers

- Extreme sport
  - So comes with its' own dangers



Cold shock



Cramp



Asthma



Cold water urticaria



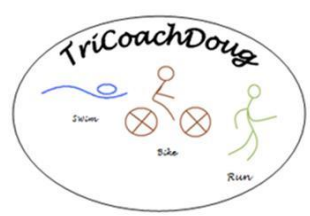
Hyperthermia



Sudden/Gradual drowning



Heart failure and stroke



# The dangers

- Extreme sport
  - So comes with its' own dangers



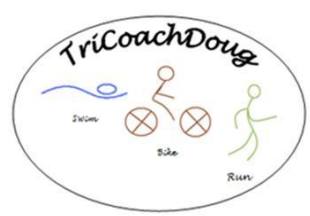
✓ Remember

Normal body temperature = 98.6F

Hyperthermia sets in > 95F

So your body temperature only needs to drop by 3.6F

Won't take long when immersed in cold water



# The dangers

- Extreme sport
  - So comes with its' own dangers



Knowledge



Experience



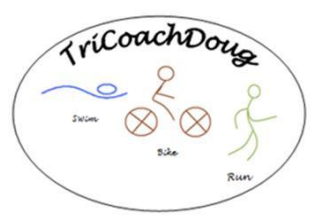
Practice



Patience



Preparation



# The dangers - Hypothermia

- Warning signs

- What to look out for



- Watch out for the 'umbles'

- Stumbles

- Mumbles

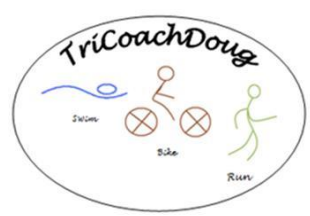
- Fumbles

- Grumbles

- Slow the changes in:

- Motor coordination

- Concentration



# The dangers - Hypothermia

- Warning signs

- What to look out for

- Mild Hypothermia

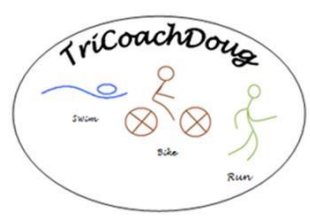
- Core temp 98.6°f – 96°f

- Shivering not under control

- Complex motor functions become impossible

- Vasoconstriction to periphery





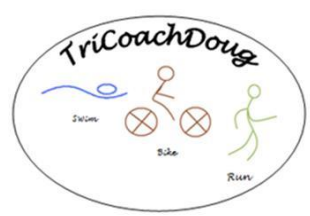
# The dangers - Hypothermia

- Warning signs
  - What to look out for



## ➤ Moderate Hypothermia

- Core temp 95°f – 93°f
  - Dazed consciousness
  - Loss of fine motor coordination
    - Particularly in hands
      - Can't zip up jackets
      - Do up clasps
  - Slurred speech
  - Violent shivering
  - Irrational behaviour
    - Undressing to get back in..
- "I don't care attitude"



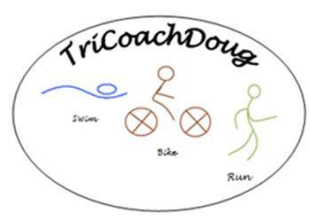
# The dangers - Hypothermia

- Warning signs
  - What to look out for



## ➤ Severe Hypothermia

- Core temp 92°f – 86°f
  - Shivering occurs in waves
    - Violent then pauses
    - Pauses get longer as temperature drops
      - Shivering finally stops
  - Person falls to ground
    - Can't walk/talk
    - Curls up in fetal position
      - To conserve heat
  - Muscle rigidity develops
  - Pale skin
  - Pupils dilated
  - Low pulse rate



# The dangers - Hypothermia

- Warning signs
  - What to look out for



## ➤ Severe Hypothermia

### ➤ Core temp 92°f – 86°f

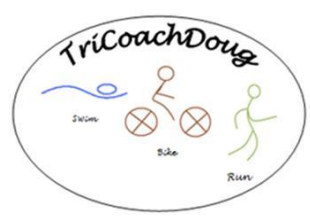
#### ➤ At 90°f

- The body tries to move into a state of hibernation
  - Shutting down peripheral blood flow
  - Reducing breathing rate
  - Reducing heart rate

#### ➤ At 86°f

- The body moves into state of 'metabolic icebox'
  - The person appears dead
  - But is still alive



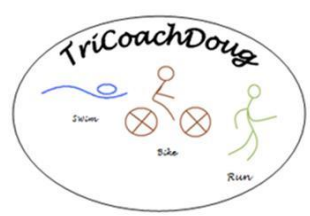


# The dangers - Hypothermia

- Treatment

- Reduce heat loss
  - Dry clothing
  - Layers
  - Increase physical activity
  
- Food and Fluids
  - Carbs
  - Proteins
  - Fats
  - Warm sugary water
    - Every 15 mins

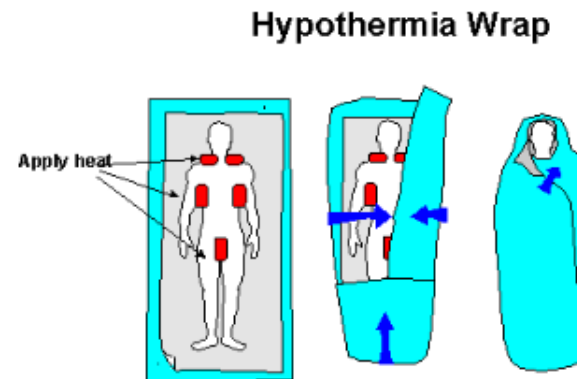


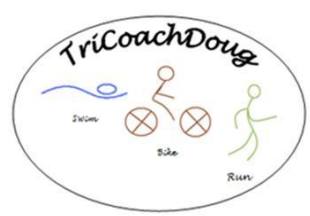


# The dangers - Hypothermia

- Treatment

- Add heat
  - Body to body contact
  - Heater
  - Hypothermic wrap
  - Heat packs



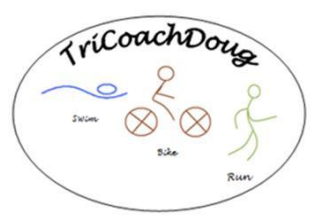


# The Swim

- Preparation
  - Key points to remember



- ✓ Stay warm for as long as possible
- ✓ Know the temperature
  - ✓ Air
  - ✓ Water
- ✓ Lay your kit out in order of dressing
  - ✓ If possible next to where you exit
  - ✓ Otherwise as close as possible
- ✓ Have a **WARM** drink ready (**NOT HOT**)
- ✓ Know your swim duration – **NO HEROICS**



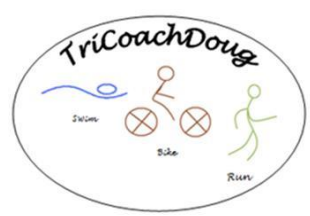
# The Swim

- Getting in
  - Key points to remember



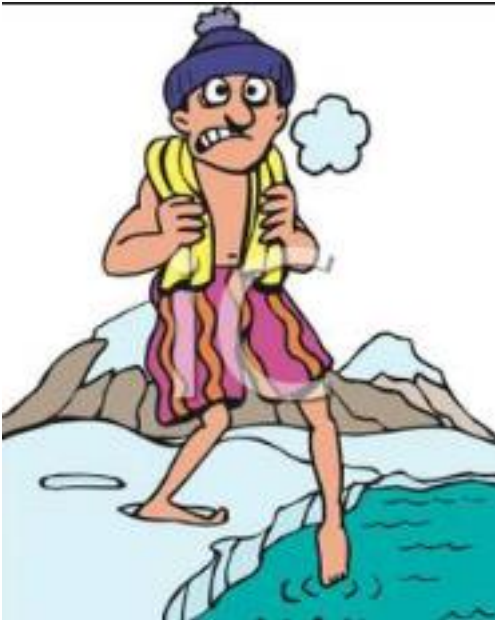
*"I was going to ask if the water was cold, but I think I can already guess."*

- ✓ Don't hang around talking
  - ✓ You'll just get colder
  - ✓ Makes it harder to get in
  - ✓ You may be holding someone else up
- ✓ Get straight in
  - ✓ So, what can you expect – see next slide

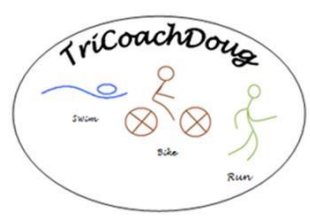


# The Swim

- The swim itself
  - Key points to remember



- ✓ This can be the difficult part
- ✓ It seems like the 1<sup>st</sup> 10 seconds are the worst
  - ✓ Lots of messages to the brain
  - ✓ Indistinguishable from pain
  - ✓ Easy to get straight back out
- ✓ 30 seconds to 3 mins is the most dangerous phase
  - ✓ Cold shock can happen between this time
  - ✓ Breathing increases from 10 – approx 60 BPM
  - ✓ Ability to hold your breath down to 10 secs



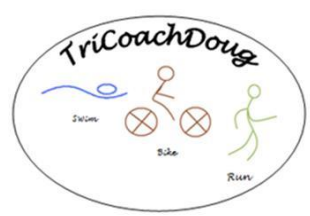
# The Swim

- The swim itself
  - Key points to remember



*"I was going to ask if the water was cold, but I think I can already guess."*

- ✓ These can lead to:
  - ✓ Hyperventilating
    - ✓ Dizziness
    - ✓ Confusion
    - ✓ Inhalation of water
  - ✓ Burning sensation
- ✓ However, these are worst case scenarios
  - ✓ Can be reduced with regular immersion in cold water
  - ✓ Increased experienced
    - ✓ Getting in is easier



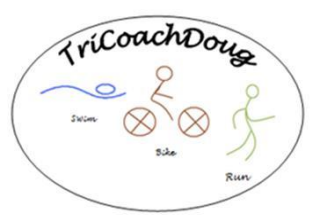
# The Swim

- Actual Swim
  - Key points to remember



*"I was going to ask if the water was cold, but I think I can already guess."*

- ✓ Splash your face with water
  - ✓ Informs the mind of the coldness
- ✓ Put your face in the water
  - ✓ Blow bubbles
  - ✓ Helps settle the breathing
- ✓ Stick to your planned duration
  - ✓ It's about time rather than distance
  - ✓ **Don't stay in longer because your mate is**
- ✓ Stick to your planned route



# The Swim

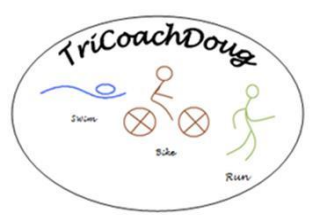
- Actual Swim
  - Key points to remember



*"I was going to ask if the water was cold, but I think I can already guess."*

- ✓ Know the warning signs
  - ✓ Little finger and thumb touch
  - ✓ Warmth
    - ✓ Sensation of feeling warm
  - ✓ Disorientation
  - ✓ Slurring of your speech
  - ✓ **THESE ARE SIGNS IT'S TIME TO GET OUT**
    - ✓ You're already getting too cold
    - ✓ Hyperthermia is setting in





# The Swim

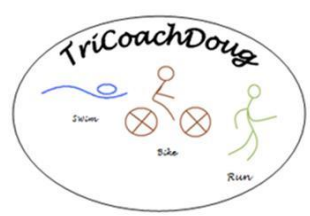
- Actual Swim
  - Key points to remember

- ✓ Look after each other
  - ✓ Remember, your decision could help
  - ✓ But don't rely on this



*"I was going to ask if the water was cold, but I think I can already guess."*

**Ultimately, you are responsible for your own safety and life**

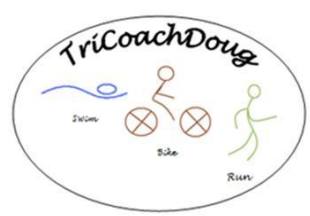


# The Swim

- Swim completion
  - Key points to remember



- ✓ Don't hang around
  - ✓ Get out of the wind
    - ✓ If outside start dressing immediately
    - ✓ Core area first then outwards
- ✓ Get inside a warm, **NOT HOT**, room
  - ✓ As above, start dressing



# After the swim

- This is the key part of winter swimming

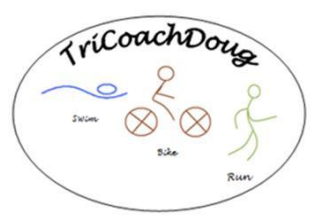


- ✓ Get dressed immediately

**Start with the core and work outwards**

- ✓ You'll have cold, and possibly numb, hands
  - ✓ Simple things can become almost impossible
    - ✓ Laces
    - ✓ Bra straps
    - ✓ Buttons

Have a **WARM** drink, **NOT HOT**



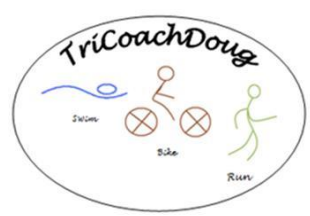
# After the swim

- This is the key part of winter swimming



- ✓ Move around
  - ✓ Your body will start to generate heat naturally
- ✓ You may still shiver for a period of time
  - ✓ That's normal
  - ✓ However, if this persists then seek medical advice

**Ultimately, if you feel unwell,  
or the coldness does not go  
after a period of time  
Get to the doctors**



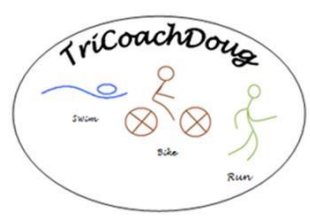
# Training for winter swimming

- As with any sport training will help



"I thought you got the hot water system fixed - these are HAILSTONES!"

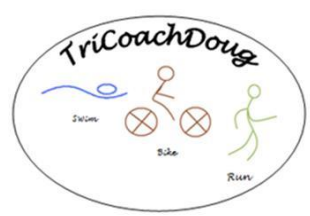
- ✓ Regular cold showers
  - ✓ On completion of your shower turn the hot down/off
- ✓ Regular cold baths
- ✓ Both these methods help to:
  - ✓ Condition the body
  - ✓ Reduce the cold shock response
  - ✓ Decrease the pain of immersion
    - ✓ But never goes away.



# 10 Golden Rules

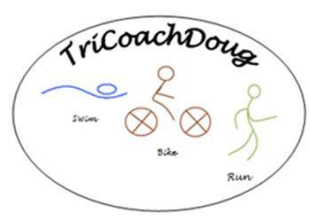
- Ultimately remember these 10 golden rules

1. Swim in a group
  - a. Keep an eye out for each other
2. Plan your swim and exit
  - a. Most mistakes are made outside of the water
3. Keep an eye on the time
  - a. Know your limits, this can be vital
  - b. Wear a watch
4. Stay warm for as long as possible before getting in
  - a. Once you're ready swim, don't stand around
5. Get dressed as soon as possible on completion



# 10 Golden Rules

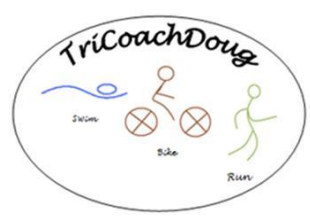
- Ultimately remember these 10 golden rules
- 5. Get dressed as soon as possible on completion
  - a. Exercise is the best and safest way to rewarm
  - b. Have your clothes laid out in order
  - c. Start with the upper body
  - d. Cover the head
  - e. Now lower body
  - f. Finally the hands
- 6. Don't swim if:
  - a. Been ill
  - b. Drinking alcohol (suggestion is within 24hrs)
- 7. Tired
  - a. You can feel more cold



# 10 Golden Rules

- Ultimately remember these 10 golden rules
- 8. Don't dive in
- 9. Be aware of the wind
  - a. Wind chill can reduce the temperature significantly
- 10. You can't out think the Laws of Thermodynamics
  - a. Given enough time the water WILL win





# Suggested kit

- The following bits of kit will make live easier
  - However, you'll just need your swim kit if training for:
    - Chilly dippers
    - Phish
    - Ice mile
    - Or some other cold water swim event
- Neoprene Suit (wetsuit)
- Neoprene hat
- Neoprene gloves
- Neoprene Boot/socks
- Swim hat (thick and bright)
- Swim goggles
- Ear plugs
- Nose plug

# Suggested kit

- Other kit
  - Dry robe
  - Woolly hat
  - Woolly gloves
  - Flask of warm drink
  - Cake

# As a final thought

- This is about fun
- Look after yourself
- Look after each other
- Keep within your boundaries
- Remember, we're all different
- And ultimately

**STAY SAFE**

# References

<https://www.princeton.edu/~oa/safety/hypocold.shtml>

<https://aneskey.com/immersion-into-cold-water/>

<https://loneswimmer.com/cold-water-swimming-articles-index/>

<http://www.coldwatersafety.org/ColdIsDangerous.html>

<https://www.active.com/fitness/articles/8-ways-to-handle-swimming-in-cold-water>