



# RACE AROUND IRELAND

NON-STOP ULTRA-CYCLING EVENT

## THE NUTRITIONAL CHALLENGES OF RAI.

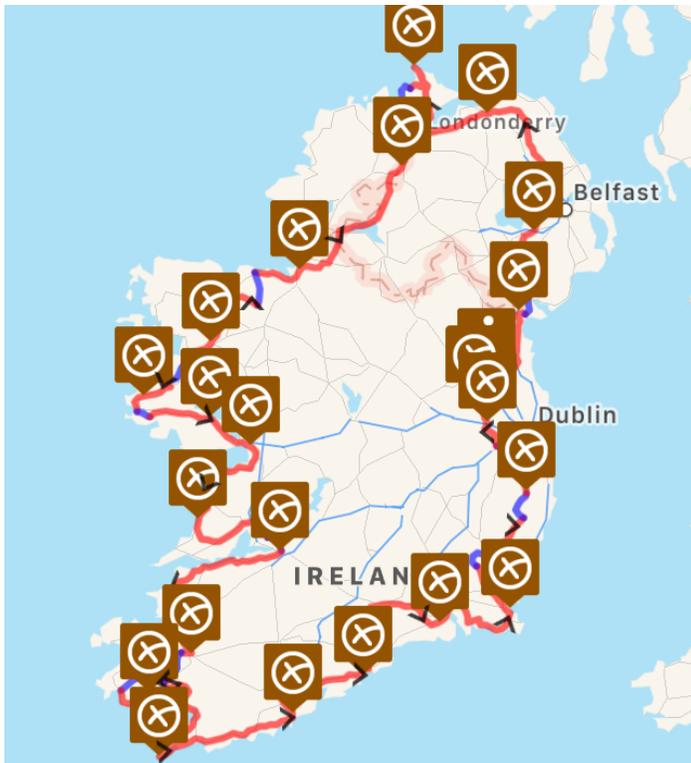
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# OVERVIEW



# WHAT IS RACE AROUND IRELAND?



- 2,150km non-stop endurance cycling race (22,000m of climbing)
- Qualifying race for Race Across America
- Amateur and professional cyclists; solos and teams (2-, 4- and 8-man teams)
- Time allowances: 96- 144hrs

# THE TEAM AND TACTICS



- Team Charton Motor Company
  - 3 cyclists: amateurs, good level of fitness
  - 7 crew: 5 drivers/ navigators, race manager and performance nutritionist
  - 1 campervan + 1 support car



- Tactics:
  - 6 hour rotations of 30 mins on/off bike
  - 3 hour break (eat, sleep, change)
  - average speed of 24km/hr



# NUTRITION FOR ENDURANCE EVENTS

Aim: optimise performance by  
minimising fatigue, dehydration  
and risk of GI discomfort<sup>1</sup>



**FAT:**  
20-35% total  
energy intake<sup>2</sup>

**CARBS:**  
8-12g/kg/day<sup>3</sup>

**ENERGY:**  
40-70kcal/kg/day<sup>4-5</sup>

**PROTEIN:**  
1.2-1.7g/kg/day<sup>6</sup>

**FLUID<sup>7</sup>:**  
individualised

# NUTRITION FOR ENDURANCE EVENTS: TIMING

- High carb meal, low in fat/fibre 2-4hr<sup>5,8</sup>
- Optional 30-60g carb top-up snack 60mins before<sup>3</sup>
- 350-500ml fluid<sup>7</sup>
- 3-6mg caffeine/kg 1 hr before<sup>9</sup>

Before

During

- 30-60g carbs every hr<sup>3</sup>
- 400-800ml fluid + electrolyte replacement<sup>7</sup>

- 1-1.2g carbs/kg<sup>3</sup>
- 1-1.2g protein/kg<sup>2,6</sup>
- Replace fluid and electrolytes<sup>7</sup>

After

# NUTRITION PLAN

## 3 Hour Break

- Recovery meal: low in fat and fibre/ high carb and protein
- Adequate fluid
- Top- up snack 30-60mins prior to cycling



## 6-hour Cycling Shift

- 400-800ml fluid/hr (water + sports drinks containing sodium)
- 30-60g carbohydrate snack/hr



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High energy and carb demands

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GI upset/ cramping

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Time-cost associated with eating on the bike

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Snacks must be compact and easily accessible

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Short recovery times requiring aggressive refuelling

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Consider caffeine use

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Suppression of appetite associated with intense exercise

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**COMMON NUTRITIONAL ISSUES FOR CYCLISTS<sup>10</sup>**

# ADDITIONAL CHALLENGES IN RAI



Limited storage and cooking facilities



Extremely short recovery times



Loss of appetite



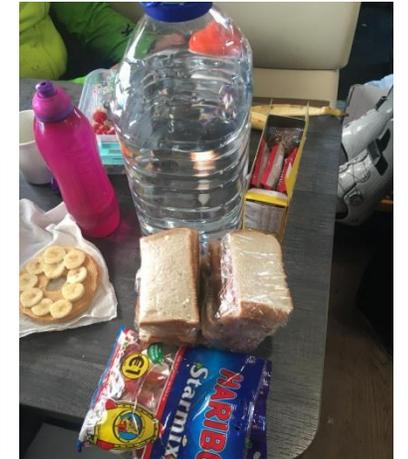
Injury and change of strategy



Preparing food on the move

# STRATEGIES TO OVERCOME COMMON CHALLENGES

- Liquid options
- Limit caffeine and tailor meal timings to maximise sleep opportunities
- Variety
- Batch cooking and simple meals
- Flavoured drinks to encourage fluid intake
- Whole team approach



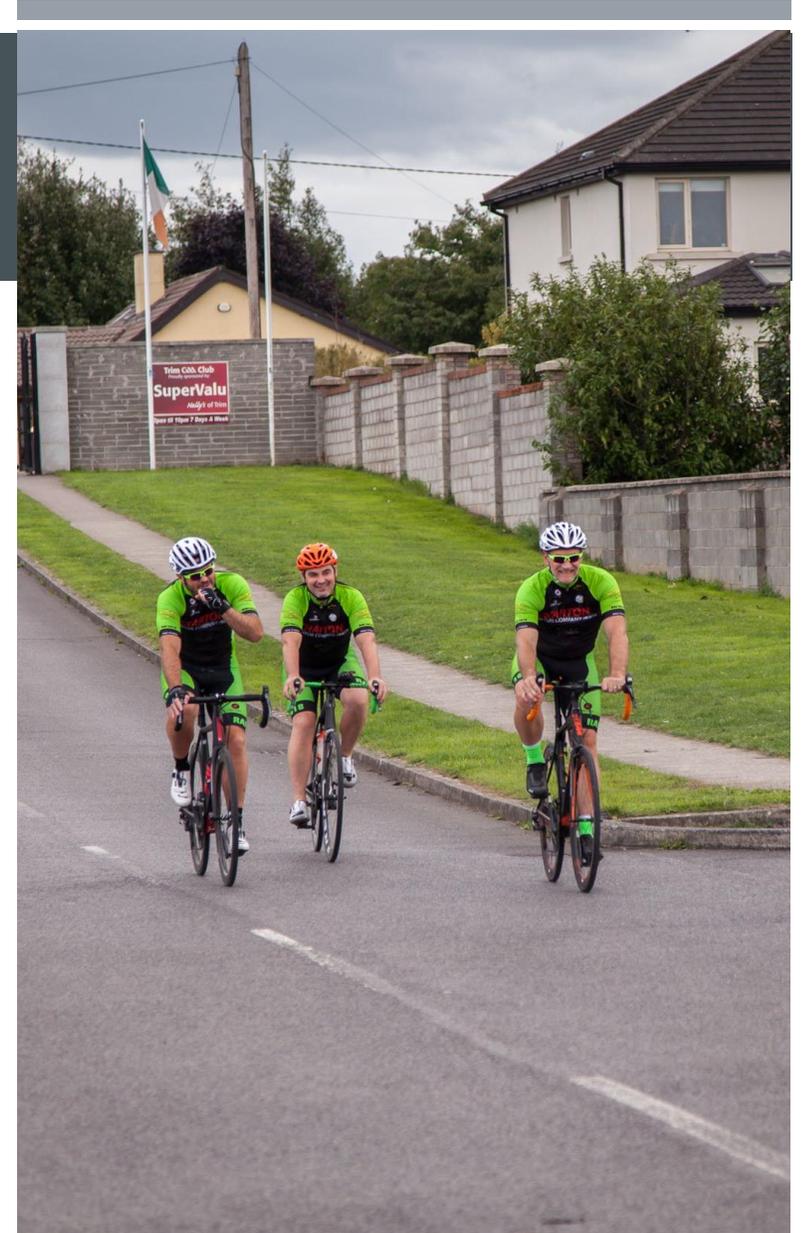
# KEY LEARNING POINTS



- Keep it simple
- Focus on liquid options
- Plan food stops efficiently
- Check voltage and appliances
- Be flexible: meal and snack options
- Sleep at every opportunity
- Avoid trying a new strategy on race day

# THE FINISH LINE...

- 98 hours and 27 mins
- 1<sup>st</sup> ever 4-man team to cross as a 2-man team
- 21.91km/hr
- 1 broken camper and a replacement car
- 50 jam sandwiches
- 24L milk
- 2kg haribo
- 11hrs sleep
- Potentially a trip to America next year?





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**Kathryn Stewart**

- Dietitian (BSc)
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New



RAI 2018



£1 a day



# THANK YOU FOR LISTENING



@EDIBLE\_EVIDENCE FOR MORE PICTURES ON MY RACE AROUND IRELAND EXPERIENCE.

# REFERENCES

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