

Shannon et al. (2019)

**Contents**

Supplementary data file 1: Knowledge of Inorganic Nitrate Dietary Survey (KINDS) .....	2
Supplementary data file 2: KINDS Advertisement.....	8

Shannon et al. (2019)

### **Supplementary data file 1: Knowledge of Inorganic Nitrate Dietary Survey (KINDS)**

#### **OUTLINE**

Welcome to the KINDS online survey. As part of a study being conducted at Newcastle University we are evaluating knowledge about dietary inorganic nitrate in individuals working in the field of nutrition. In this survey, we start by asking some brief questions about your background, to help us identify factors which might account for differences in knowledge between individuals. We then go on to ask questions around your specific knowledge around the nutritional properties of dietary inorganic nitrate. This questionnaire should take around 5 - 10 minutes to complete. All of the information you provide will be anonymous, and will be treated confidentially. The study has been approved by the Newcastle University Ethics Committee (4961/2018).

#### **GENERAL INFORMATION**

##### **1. Age (years)**

- ≤ 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 - 70
- 70 +
- Prefer not to say

##### **2. Gender**

- Male
- Female
- Prefer not to say
- Other

If you selected other, please specify:

##### **3. What is your highest qualification?**

- GCSE/O-levels
- A-levels
- Undergraduate degree
- Master's degree
- PhD
- Other

If you selected other, please specify:

##### **4. What is your current position? You may select more than one option.**

- Public health nutritionist
- Policy maker
- Research scientist
- School teacher
- University lecturer
- Clinician Dietitian

Shannon et al. (2019)

- Nutritionist
- Sports nutritionist
- Sports trainer
- Food scientist
- Student
- Unemployed
- Other

If you selected other, please specify:

**5. Which of the following nutritional areas are relevant for your work/study? You may select several options if you are interested in more than one nutritional area.**

- Clinical nutrition
- Nutritional epidemiology
- Molecular nutrition
- Sports nutrition
- Food processing
- Food policy
- Animal nutrition
- Agriculture
- Food marketing
- Public health nutrition
- Other

If you selected other, please specify:

**QUESTIONNAIRE**

**1. Have you heard of inorganic nitrate before?**

- Yes
- No
- Unsure

**2. In your opinion, is dietary inorganic nitrate a primarily beneficial or harmful nutritional component?**

- Beneficial
- Harmful
- Unsure
- Other

If you selected other, please specify:

**3. For each of the following variables, please specify if it is increased or decreased by dietary inorganic nitrate:**

- Sports performance
  - Increase
  - Decrease
  - Unsure

Shannon et al. (2019)

- Blood pressure
    - Increase
    - Decrease
    - Unsure
  - Glucose levels
    - Increase
    - Decrease
    - Unsure
  - Lung function
    - Increase
    - Decrease
    - Unsure
  - Cancer risk
    - Increase
    - Decrease
    - Unsure
  - Cognitive function
    - Increase
    - Decrease
    - Unsure
  - Kidney function
    - Increase
    - Decrease
    - Unsure
- 4. In the general population, what is the average daily intake of dietary inorganic nitrate of an individual?**
- < 10 mg/day
  - 11 - 50 mg/day
  - 51 - 200 mg/day
  - 201 - 500 mg/day
  - 501 - 750 mg/day
  - Unsure
- 5. Do you know what is the acceptable daily intake (ADI) of dietary inorganic nitrate?**
- Currently no ADI
  - 0.2 mg/kg body mass/day
  - 3.7 mg/kg body mass/day
  - 14.8 mg/kg body mass/day
  - 29.6 mg/kg body mass/day
  - Unsure

Shannon et al. (2019)

**6. In your opinion, does the ADI for dietary inorganic nitrate require revision?**

- Yes - it should be higher
- Yes - it should be lower
- No
- Unsure

**7. For the following foods, do you think they typically have a low (< 50 mg/100 g freshweight) or high (> 100 mg/100 g fresh-weight) dietary inorganic nitrate content?**

- Spinach
  - High
  - Low
  - Unsure
- Sausage
  - High
  - Low
  - Unsure
- Tomato
  - High
  - Low
  - Unsure
- Beetroot
  - High
  - Low
  - Unsure
- Chocolate
  - High
  - Low
  - Unsure
- Bacon
  - High
  - Low
  - Unsure
- Lettuce
  - High
  - Low
  - Unsure
- Radish
  - High
  - Low
  - Unsure

Shannon et al. (2019)

**8. Which of the following factors do you think modify the inorganic nitrate content of food?**

- Cooking method
  - Yes
  - No
  - Unsure
  
- Season
  - Yes
  - No
  - Unsure
  
- Soil conditions
  - Yes
  - No
  - Unsure
  
- Use of fertiliser
  - Yes
  - No
  - Unsure
  
- Storage conditions
  - Yes
  - No
  - Unsure
  
- Pickling
  - Yes
  - No
  - Unsure

**9. How much dietary inorganic nitrate is there, on average, in drinking water?**

- < 50 mg/L
- 51 - 100 mg/L
- 101 - 200 mg/L
- 201 - 300 mg/L
- Unsure

**10. Which biomarker would you choose to evaluate dietary inorganic nitrate intake?**

- Urinary nitrate
- Salivary nitrite
- Plasma nitrite
- Exhaled nitric oxide
- Unsure
- Other

If you selected other, please specify:

Shannon et al. (2019)

**11. In the body, which of the following compounds is dietary inorganic nitrate converted into? You can select multiple answers.**

- Oxygen
- Carbon dioxide
- Nitric oxide
- Glucose
- Adrenalin
- Nitroglycerine
- Nitrosamines
- Unsure

**12. Which one of these mechanisms is involved in the conversion of nitrate into nitrite in the mouth?**

- C reactive protein
- Oxy-Haemoglobin
- Salivary amylase
- Bacterial reductases
- Unsure

Shannon et al. (2019)

## Supplementary data file 2: KINDS Advertisement



### **PARTICIPANTS WANTED FOR ONLINE SURVEY EVALUATING KNOWLEDGE OF DIETARY INORGANIC NITRATE**

Participants are being sought for an anonymous survey conducted by researchers at Newcastle University evaluating knowledge of dietary inorganic nitrate in individuals working in the field of nutrition. Participants are asked to dedicate 5 - 10 minutes of their time to complete the KINDS (Knowledge of Inorganic Nitrate Dietary Survey) questionnaire. If you are willing and able to take part, please click on the link below:

<https://newcastle.onlinesurveys.ac.uk/knowledge-of-inorganic-nitrate-dietary-survey-kinds-8>

Thank you for your time and help.

The KINDS Team

If you would like to contact us, please email: [KINDSTeam.Newcastle@gmail.com](mailto:KINDSTeam.Newcastle@gmail.com)