

**TELEPHONE SURVEY FOR ARSENIC IN ADULT PARTICIPANTS FROM BIOMONITORING CALIFORNIA PROJECTS<sup>1</sup>**

Participant ID#
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Date survey completed: \_\_\_\_/\_\_\_\_/\_\_\_\_ (mo/day/yr)

Survey administered by \_\_\_\_\_ (first name) \_\_\_\_\_ (last name)

*Refer to telephone script for how to initiate contact or leave a message if necessary.*

We collected a urine sample from you on <insert date> and measured various chemicals, including arsenic.

We found that the level of total arsenic in your urine was higher than expected. I would like to ask you some questions that will help us understand how you may have been exposed to arsenic. This is a voluntary survey. You can refuse to answer questions, you can skip any of the questions, or you can stop at any time.

Do you have any questions for me before we begin?

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I'll start by asking questions about your diet, because certain foods and beverages can contain arsenic.

1. When we think about how much rice you eat, we also want to include rice-based products. Some examples include cold rice cereals (such as Rice Krispies®), hot rice cereals (such as Cream of Rice®), rice cakes, rice crackers, rice pasta or noodles, rice pudding, brown rice syrup, rice milk, and horchata (a drink that can be made from rice). Do you eat or drink rice-based products? *(Note to staff administering survey – ask follow-up questions on serving sizes as needed and fill out data table for question 2.)*

Yes

• If Yes:

- Can you tell me the types and brand names of the rice-based products you usually eat or drink?

\_\_\_\_\_

Don't know / unsure

Refused

- For each rice-based product, how many times do you usually consume it as a meal or snack in a normal week? \_\_\_\_\_

Don't know / unsure

<sup>1</sup> Some questions in this survey were drawn from the Florida Department of Health Acute Arsenic Poisoning Case Report Form. ([http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/ documents/crf-arsenic.pdf](http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/documents/crf-arsenic.pdf))

Refused

- For each rice-based product, about how much do you usually consume each time you eat or drink it?

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Don't know / unsure

Refused

No

Don't know / unsure

Refused

2. Do you eat prepared foods that list brown rice syrup as an ingredient? Some examples of foods that may contain brown rice syrup are energy bars, cereal bars, granola bars, and granola. (Note to staff administering survey – ask follow-up questions on serving sizes as needed and fill out data table for question 3.)

Yes

- If Yes:

- Can you tell me the types and brand names of the foods that may contain brown rice syrup that you usually eat?

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Don't know / unsure

Refused

- For each food item, how many times do you usually consume it as a meal or snack in a normal week?

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Don't know / unsure

Refused

- For each food item about how much do you usually consume each time you eat it?

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Don't know / unsure

Refused

No

Don't know / unsure

Refused

3. Do you, or does someone in your home, prepare or cook foods using rice-based ingredients, such as brown rice syrup or rice wine vinegar? (Note to staff administering survey - see table for question 4 at the end of this questionnaire to fill in responses.)

Yes

- If Yes:

- Can you tell me the types of foods containing rice-based ingredients that you usually eat?

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Don't know / unsure

Refused

- Can you tell me the brands of rice-based ingredients used in these foods?

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Don't know / unsure

Refused

- For each food item using a rice-based ingredient, how many times do you usually consume it as a meal or snack in a normal week?

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Don't know / unsure

Refused

- For each food item prepared using a rice-based ingredient, about how much do you usually consume each time you eat or drink it?

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Don't know / unsure

Refused

No

Don't know / unsure

Refused

4. (Don't ask if responded NO in previous survey) In the last survey we asked if you eat seaweed in your usual diet. You answered that you <insert Do or Do Not> eat seaweed. Certain types of seaweed called hijiki seaweed, a short, black noodle-like seaweed, can sometimes contain arsenic.
5. (Don't ask if responded NO in previous survey) We also asked if you eat fish and shellfish in the last survey. You answered that you <insert Do or Do Not> eat fish and shellfish. This also includes fish and shellfish caught by you, family members, or friends, in addition to what you may get in a store or restaurant. Some forms of arsenic, like the type of arsenic found in fish, is not as much of a health concern, but knowing if you eat these foods helps us interpret your arsenic results.
6. Some studies report finding arsenic in mushrooms. Do you eat mushrooms, including store-bought mushrooms or wild mushrooms that you collect? (*Note to staff administering survey – ask follow-up questions on foraging locations and mushrooms collected as needed and fill out data table for question 8.*)

Yes

- If Yes:

- How many times do you usually eat mushrooms in a normal week?? \_\_\_\_\_

Don't know / unsure

Refused

- How much do you usually eat during a normal week?

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Don't know / unsure

Refused

- What particular type or types of mushrooms do you usually eat?

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Don't know / unsure

Refused

- Do you forage for mushrooms?

Yes

- If Yes – in which locations do you forage for mushrooms? For each location, can you tell me what type or types of mushrooms you collect there? \_\_\_\_\_

No

Don't know / unsure

Refused

No

Don't know / unsure

Refused

7. This question is about alcoholic beverages. Arsenic has been found in some alcoholic beverages. Do you drink beer, wine, and/or sake (rice wine)? (*Note to staff administering survey – ask follow-up questions on serving sizes as needed and fill out data table for question 9.*)

Yes

• If Yes:

- Can you tell me the types and brand names of the alcoholic beverages you usually drink?

\_\_\_\_\_

Don't know / unsure

Refused

- For each beverage type (beer, wine, and/or sake [rice wine]), how many times do you usually drink it in a normal week?

\_\_\_\_\_

Don't know / unsure

Refused

- For each beverage type (beer, wine, and/or sake [rice wine]), about how much do you usually drink each time?

\_\_\_\_\_

Don't know / unsure

Refused

No

Don't know / unsure

Refused

8. There are reports of arsenic in some teas. Do you drink tea? (*Note to staff administering survey – ask follow-up questions on serving sizes as needed and fill out data table for question 10.*)

Yes

• If Yes:

- What types of tea (e.g., black, green, herbal) do you usually drink in a normal week?

- \_\_\_\_\_
- Can you tell me the brand names (such as Lipton®, Twinings®, Celestial Seasonings®)?

- \_\_\_\_\_
- Can you tell me specific types of these teas (such as green tea, English breakfast, Assam black tea, rooibos)?

- \_\_\_\_\_
- Can you tell me what country they came from?

\_\_\_\_\_

Don't know / unsure

Refused

- For each type of tea, how many times do you usually drink it in a normal week?

\_\_\_\_\_

Don't know / unsure

Refused

- For each type of tea, about how much do you usually drink each time?

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Don't know / unsure  
 Refused

No  
 Don't know / unsure  
 Refused

9. Arsenic has been found in the past in a few kinds of apple and grape juices. Do you drink apple and/or grape juice? (Note to staff administering survey - see table for question 11 at the end of this questionnaire to fill in responses.)

Yes

- If Yes:

- Do you usually drink apple or grape juice in a normal week?

- Can you tell me the brand names of these juices?

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Don't know / unsure  
 Refused

- For each type of juice (apple and grape), how many times do you usually drink it in a normal week?

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Don't know / unsure  
 Refused

- For each type of juice (apple and grape), about how much do you usually drink each time?

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Don't know / unsure  
 Refused

No  
 Don't know / unsure  
 Refused

10. Some drinking water sources can contain arsenic, especially if it is in an area with high arsenic in the soil. Do you drink or cook with water that comes from a private well?

Yes       No       Don't know / unsure       Refused

- If Yes – has the water been tested for chemicals, including arsenic?

Yes       No       Don't know / unsure       Refused

- If it has been tested for arsenic, what were the results? \_\_\_\_\_

Don't know / unsure       Refused

11. In the last year, did you visit family or friends who drink or cook with water that comes from a private well?

Yes       No       Don't know / unsure       Refused

- If Yes – did you drink water or eat meals or snacks with those family or friends while you were visiting them?

Yes       No       Don't know / unsure       Refused

- If Yes- where do they live?
-

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- If Yes – has the water been tested for chemicals, including arsenic?  
 Yes                       No                       Don't know / unsure                       Refused
- If Yes – what were the arsenic results?

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Don't know / unsure                       Refused

12. Did you travel in the month before you gave us your blood and urine samples on <insert month and year>?

Yes

- If Yes – where did you travel?

- 
- I'm going to list some international locations. If I mention a location you traveled to in the last week, please tell me.

- Chile
- Argentina
- Bangladesh
- India
- Nepal
- China
- Taiwan
- Thailand
- Other: \_\_\_\_\_

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Don't know / unsure  
 Refused

No

Don't know / unsure  
 Refused

13. (Don't ask if responded NO in previous survey) In the last survey we asked you about imported herbal medicines and traditional remedies. Arsenic has been found in some imported herbal medicines and traditional remedies. These kinds of products are sometimes called "homeopathic," "naturopathic", or "folk" medicines. Again, this is something to keep in mind when thinking about arsenic exposures.

14. Arsenic is sometimes found in some seaweed or algae supplements, such as kelp supplements. Do you take any of these types of supplements? (*Note to staff administering survey – ask follow-up questions on serving sizes as needed and fill out data table for questions 16 and/or 17.*)

Yes

- If Yes:
  - Can you tell me the types and brand names of the kelp and/or other seaweed and algae supplements that you take?  
\_\_\_\_\_
  - For each supplement that you take, approximately how often you take it (e.g., daily, weekly, or monthly)?  
\_\_\_\_\_
  - For each supplement that you take, how many or how much do you take at a time?  
\_\_\_\_\_

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No  
 Don't know / unsure  
 Refused

15. Do you take any other types of supplements? This does not mean these items contain arsenic, but some supplements have been found to contain arsenic. *(Note to staff administering survey – ask follow-up questions on serving sizes as needed and fill out data table for questions 16 and/or 17.)*

16. This question is about pressure-treated wood. Most types of pressure-treated wood available today do not contain arsenic. However, pressure-treated wood that is older and pressure-treated wood used for certain applications (e.g., for foundations, shingles or utility poles) can contain arsenic. Arsenic-treated wood may be greenish in color, and may have visible small slits where the chemicals were injected. Pressure-treated wood may be found in outdoor structures such as playground equipment, decks, picnic tables, and fences. Do you have regular contact with this type of wood?

- Yes                       No                       Don't know / unsure                       Refused
- If Yes – do you know whether the structure was installed before 2004?
 

Yes                       No                       Don't know / unsure                       Refused
  - If Yes – do you ever barbecue with or otherwise burn recycled wood (for example in your fireplace)? Some recycled wood may include pressure-treated wood.
 

Yes                       No                       Don't know / unsure                       Refused

17. Some soils can contain elevated levels of arsenic. This is unlikely to be a source of significant arsenic exposure, but to be thorough we want to ask you how much contact you have with soil. Do you regularly participate in activities that involve extensive contact with soil, dirt, or dust? Some examples include gardening, off-roading, or trail hiking. *(Note to staff administering survey - see table for question 19 at the end of this questionnaire to fill in responses.)*

Yes

- If Yes –

Activity	Location	How often do you participate in them? (i.e. daily, weekly, or monthly)

Don't know / unsure                       Refused

- No  
 Don't know / unsure  
 Refused

18. Now I'm going to ask you a question related to arts and crafts materials. Do you use specialized art pigments? Some pigments containing arsenic can still be purchased (for example, Orpiment and Conicalcite).

Yes                       No                       Don't know / unsure                       Refused

19. Arsenic has been found in some imported, counterfeit, and knock-off, cosmetics, and some cosmetics or personal care products containing muds or herbs. The products containing muds or herbs could be marketed as "natural," and could include herbal soaps, herbal creams, and facial masks. Do you use any of these products?

20. A chemotherapy drug called “Trisenox<sup>®</sup>” contains arsenic trioxide and is used to treat acute promyelocytic leukemia (APL). Do you know if your doctor has ever administered Trisenox to you? This drug is only given by doctors in a hospital or clinic setting and cannot be prescribed for home use.

- Yes                       No                       Don't know / unsure                       Refused

- If Yes –when did you last receive Trisenox?

- 
- Don't know / unsure                       Refused

21. Smoking can also be a source of arsenic. You told us that you smoke <insert #> cigarettes per day. Is this correct?  Yes     No    Used to smoke, but quit    Don't know / unsure    Refused

22. Certain occupational settings or job-related activities may result in arsenic exposures. Do you know if you work with or have come into contact with arsenic at your job?

- Yes                       No                       Don't know / unsure                       Refused

- If Yes – what type of work do you do?

- 
- Don't know / unsure                       Refused

- If Yes – when were you employed at this job?

- 
- Don't know / unsure                       Refused

23. I am now going to go through a list of industries and work settings. (*Note to staff administering survey – read down left column first, then right column.*) If you regularly work in or are around any of the following, please tell me.

- |  |  |
|--|--|
| <input type="checkbox"/> Electronics manufacturing                               | <input type="checkbox"/> Concrete production   |
| <input type="checkbox"/> Battery or electronics recycling                        | <input type="checkbox"/> Laboratory            |
| <input type="checkbox"/> Emergency response, such as firefighting                | <input type="checkbox"/> Glass manufacturing   |
| <input type="checkbox"/> Agriculture (crops/livestock)                           | <input type="checkbox"/> Mining industry       |
| <input type="checkbox"/> Landscape maintenance, especially herbicide application | <input type="checkbox"/> Smelter industry      |
| <input type="checkbox"/> Road or pavement work with road reflectors              | <input type="checkbox"/> Waste incinerator     |
| <input type="checkbox"/> Construction and/or demolition                          | <input type="checkbox"/> Industrial processing |
|  | <input type="checkbox"/> Coal-burning industry |

*(Note to staff administering survey: If respondent indicates “yes” to any of the above categories, ask for details on where he/she goes [e.g., facility name, location], what he/she does at the industry/facility [e.g., tend livestock], whether he/she uses personal protective equipment and follows other guidelines, if he/she is aware of any arsenic uses [e.g., herbicides] in these settings, etc. If participant indicates that he/she does road or pavement work with road reflectors, ask if the reflectors are made of glass beads and what is the extent of contact the participant has with them. Please use additional pages as needed.)*

24. Can you think of any other information about your possible current or past arsenic exposures?

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Thank you for taking this survey. We hope this information will help you think about possible ways you could have come into contact with arsenic, and try to prevent it in the future. This information also helps us learn more about how people come into contact with arsenic. Do you have any questions for me? You can also feel free to contact us in the future if questions come up.



**DATA TABLE FOR QUESTION 2 (rice products)**

Type of rice product	Brand, if identified	Frequency in last 3 days	Amount consumed (serving size)

**DATA TABLE FOR QUESTION 3 (foods containing brown rice syrup)**

Type of food that may contain brown rice syrup	Brand, if identified	Frequency in last 3 days	Amount consumed (serving size)

**DATA TABLE FOR QUESTION 4 (rice-based ingredients)**

Type of rice-based ingredient	Food prepared with rice-based ingredient	Brand, if identified	Frequency in last 3 days	Amount consumed (serving size)

**DATA TABLE FOR QUESTION 8 (mushrooms)**

Foraging location	Type(s) of mushrooms collected

**DATA TABLE FOR QUESTION 9 (alcoholic beverages)**

Type of beer or wine (including sake [rice wine])	Brand, if identified	Frequency in last 3 days	Amount consumed (serving size)

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**DATA TABLE FOR QUESTION 10 (tea)**

Tea type	Brand and/or type, if identified (e.g., Twinings Earl Grey)	From which country, if identified	Frequency in last 3 days	Amount consumed (serving size)

**DATA TABLE FOR QUESTION 11 (apple and grape juice)**

Type of juice	Brand, if identified	Frequency in last 3 days	Amount consumed (serving size)

**DATA TABLE FOR QUESTIONS 16 and/or 17 (supplements)**

Kelp, seaweed, or algae supplement	Brand, if identified	Frequency of consumption	Amount consumed (e.g., teaspoon/ tablespoon; number of pills)
Other supplements	Brand, if identified	Frequency of consumption	Amount consumed

**DATA TABLE FOR QUESTION 19 (soil/ dirt/ dust activities)**

Activity description	Location(s)	Frequency