

23andMe Parkinson's disease Microbiome Survey

SURVEY TITLE: Parkinson's disease Microbiome

SURVEY DESCRIPTION: Thank you for participating in the 23andMe Parkinson's disease Microbiome study. This survey is designed to understand your experience using the microbiome sample collection kit as well as your dietary, lifestyle, and medical history in the days, weeks, and months prior to sample collection. **If you have not collected your samples, please do so first. Please complete this survey within 1-week of providing your saliva and stool samples.**

Estimated time to complete: 10-15 minutes.

PAGE 1: PD Microbiome Sample Collection Kit Experience

1. Did you experience any difficulties **understanding how to use** the microbiome sample collection kit?

Single select

- ☐ Yes, I experienced major difficulties
- ☐ Yes, I experienced minor difficulties
- ☐ No difficulties

[If answer to #1 is "Yes, I experienced major difficulties" or "Yes, I experienced minor difficulties", direct participant to answer question #2. If answer to #1 is "No difficulties", direct participant to answer question #3.]

2. Please tell us more about the difficulties you encountered understanding how to use the kit.

Free text

3. Did you experience any difficulties **collecting either your stool or saliva samples** using the microbiome sample collection kit?

Single select

- ☐ Yes, I experienced major difficulties
- ☐ Yes, I experienced minor difficulties
- ☐ No difficulties

[If answer to #3 is "Yes, I experienced major difficulties" or "Yes, I experienced minor difficulties", direct participant to answer question #4. If answer to #3 is "No difficulties", direct participant to answer question #5.]

4. Please tell us more about the difficulties you encountered collecting your stool or saliva sample.

Free text

5. Were you able to successfully complete the sample collection and return of the microbiome sample collection kit as instructed?

Single select

☐ No, I was not

☐ Yes, I was

6. Is there anything else you would like to tell us about your experience using the microbiome sample collection kit?

Free text

PAGE 2: PD Biometrics and Demographics

7. What is your current age?

Integer

8. What is your height in feet and inches?

__ __
Integer

9. What is your current weight in pounds?

Integer

10. Are you currently married?

Single select

☐ Yes

☐ No

11. Which best describes the area or areas where you spent most of your childhood?

Single select

☐ Large city (250,000 or more)

☐ Midsize city (100,000-249,999)

☐ Suburb

☐ Large town (25,000-99,000)

☐ Small town (2,500-24,999)

☐ Rural area

- ☐ Multiple types of areas
- ☐ I'm not sure

12. At what age did you start working full-time?

Integer

13. In a typical week, how many hours do you work?

Single select

- ☐ 0 hours per week
- ☐ Less than 30 hours per week
- ☐ Between 30 and 45 hours per week
- ☐ More than 45 hours per week

14. In a typical week, how many days of the week would you consider to be work days rather than non-work days?

Single select

- ☐ 0 work days, 7 non-work days
- ☐ 1 work day, 6 non-work days
- ☐ 2 work days, 5 non-work days
- ☐ 3 work days, 4 non-work days
- ☐ 4 work days, 3 non-work days
- ☐ 5 work days, 2 non-work days
- ☐ 6 work days, 1 non-work day
- ☐ 7 work days, 0 non-work days

15. In the past 6 weeks, have you been a night shift worker (more than half of your official work hours between 6pm and 7am)?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

16. Do you currently own a pet?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

PAGE 3: Parkinson's disease Specific

The following question (#17) is only available to participants who previously self-reported a Parkinson's disease diagnosis to 23andMe.

17. Which of the following symptoms of Parkinson's disease were you experiencing at the time you provided samples for the microbiome sample collection kit? Please check all that apply.

- ☐ Tremor or shaking
- ☐ Muscle rigidity
- ☐ Pain
- ☐ Fatigue
- ☐ Slowness of movement
- ☐ Constipation
- ☐ None of the above

PAGE 4: Lifestyle and diet

18. Have you lost over 10lbs in the past year?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

19. How many hours of sleep do you get per night, on average?

Integer

20. Do you currently smoke tobacco?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

[IF answer to #20 is "Yes", direct participant to answer question #21. IF answer to #20 is "No" or "I'm not sure", direct participant to answer question #22.]

21. During the past 3 months, how many cigarettes on average have you smoked per day?

Single select

- ☐ Less than 10
- ☐ 11-20 cigarettes a day
- ☐ 21-30 cigarettes a day
- ☐ 31-40 cigarettes a day
- ☐ 41-50 cigarettes a day
- ☐ 51 or more cigarettes a day

22. Over the past week, how often did you eat raw or cooked vegetables?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

23. Over the past week, how often did you eat fresh fruit?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

24. Over the past week, how often did you eat meat?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

25. In the past week, how often did you eat soy products (tofu, soy milk, tempeh, etc.)?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

26. Which type of bread do you usually eat?

Single select

- ☐ Rye
- ☐ Whole Wheat
- ☐ Multigrain
- ☐ White
- ☐ Sourdough
- ☐ I'm not sure

27. During a typical week, how often do you eat breakfast?

Single select

- ☐ Never or almost never
- ☐ Rarely
- ☐ 1-2 times per week
- ☐ 3-4 times per week
- ☐ 5-6 times per week
- ☐ 6 or more times a week
- ☐ I'm not sure

28. Over the past week, how often did you eat desserts or other sugary foods?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

29. Over the past week, how often did you consume coffee?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

30. Over the past week, how often did you drink regular (i.e. non-diet) soda?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

31. Over the past week, how often did you consume beer?

Single select

- ☐ Never
- ☐ Less than once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Daily
- ☐ 2-3 times a day
- ☐ More than 3 times a day

32. In the last two weeks, how many servings of alcohol did you drink each day? (1 serving equals 12 oz. of beer, 5 oz. of wine, or 1.5 oz. of hard alcohol)

Single select

- ☐ None
- ☐ Between 0 and 1
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

33. Do you prefer milk or dark chocolate?

Single select

- ☐ Milk chocolate
- ☐ Dark chocolate
- ☐ No preference
- ☐ I'm not sure

PAGE 5: Health

34. Have you ever been diagnosed with or treated for atrial fibrillation (irregular or rapid heart rate)?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

35. Have you ever been diagnosed with or treated for a transient ischemic attack (TIA) or ischemic stroke?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

36. Have you ever been diagnosed with or treated for chronic fatigue syndrome (also referred to as myalgic encephalomyelitis)?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

37. Have you taken an antibiotic in the past 6 months?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

38. Have you taken any of the following types of medications in the past year? Please check all that apply.

Single select

- ☐ Amoxicillin
- ☐ Progesterone
- ☐ Estrogen
- ☐ Drospirenone and ethinylestradiol (Yaz®, Gianvi®, Yasmin®)
- ☐ Clonazepam (Klonopin®)
- ☐ Nitrofurantoin (Macrobid®)
- ☐ Mesalazine (Canasa®, Apriso®, Pentasa®)
- ☐ TNF-alpha inhibitors (Humira®, Amjevita®, Cimzia®)
- ☐ Azathioprine (Imuran®, Azasan®)
- ☐ Venlafaxine (Effexor XR®)
- ☐ Rupatadine (Rupafin®)
- ☐ None of the above

The following question (#39) is only available to participants who previously self-reported a Parkinson's disease diagnosis to 23andMe.

39. Are you currently taking any of the following medications? Please check all that apply.

- ☐ Azilect (rasagiline)
 - ☐ Eldepryl, Carbex, Atapryl, or Emsam patch (selegiline or deprenyl)
 - ☐ Mirapex (pramipexole) or Mirapex ER
 - ☐ Parcopa (carbidopa/levodopa orally disintegrating tablet)
 - ☐ Parlodel (bromocriptine)
 - ☐ Permax (pergolide)
 - ☐ Requip (ropinerole)
 - ☐ Sinemet or Atamet (carbidopa/levodopa)
 - ☐ Stalevo (carbidopa, levodopa and entacapone)
 - ☐ Symmetrel (amantadine)
 - ☐ None of the above
- [CONCEPT: pdmb_main_pd_specific_medications]

40. Have you been treated for gastroenteritis (stomach flu) in the past year?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

41. How often have you taken sick leave in the past year?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

42. How would you rate your current weight?

Single select

- ☐ Severely underweight
- ☐ Underweight
- ☐ Normal
- ☐ Little overweight
- ☐ Very overweight
- ☐ I'm not sure

43. In the last year, have you made any plans to change your weight?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

44. In the past week, how many days have you experienced bloating?

Single select

- ☐ 0 days
- ☐ 1-3 days
- ☐ 4-6 days
- ☐ All 7 days
- ☐ I'm not sure

45. Did you ever have surgery to remove your gallbladder, as a treatment for gallstones or gallbladder infection?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

46. Have you ever had a positive allergy test, performed by a medical professional, to foods?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

47. How often do you use CoQ10 supplements? Your best guess is fine.

Single select

- ☐ Never
- ☐ Less than once a month
- ☐ Once a month
- ☐ 2-3 times a month
- ☐ Once a week
- ☐ 2-3 times a week
- ☐ Daily

48. In a typical week, do you take a magnesium supplement?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

PAGE 6: Oral Health

49. Have you ever been diagnosed with, or treated for, any of the following conditions? Please check all that apply.

- ☐ Caries (cavities)
- ☐ Gingivitis
- ☐ Periodontitis
- ☐ Enamel erosion
- ☐ Receding gums
- ☐ Oral cancer
- ☐ None of the above

QUESTION:

Have you ever experienced any of the following conditions?

50. QUESTION: Tooth sensitivity

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

51. QUESTION: Tooth pain (toothache)

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

52. QUESTION: Loose teeth, not from an injury

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

53. QUESTION: Bleeding or swollen gums from brushing

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

54. QUESTION: Bleeding or swollen gums from flossing

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

55. QUESTION: Persistent bad breath or taste in mouth

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

The following question (#56) is only available to participants who said "Yes" to question #50.

56. During the past 3 months, how often have you experienced tooth sensitivity?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

The following question (#57) is only available to participants who said "Yes" to question #51.

57. During the past 3 months, how often have you experienced tooth pain (toothache)?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

The following question (#58) is only available to participants who said "Yes" to question #52.

58. During the past 3 months, how often have you experienced loose teeth, not from an injury?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

The following question (#59) is only available to participants who said "Yes" to question #53.

59. During the past 3 months, how often have you experienced bleeding or swollen gums from brushing?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

The following question (#60) is only available to participants who said "Yes" to question #54.

60. During the past 3 months, how often have you experienced bleeding or swollen gums from flossing?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

The following question (#61) is only available to participants who said "Yes" to question #55.

61. During the past 3 months, how often have you experienced persistent bad breath or taste in mouth?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Frequently
- ☐ Very frequently
- ☐ I'm not sure

62. How many missing teeth do you have?

Single select

- ☐ None
- ☐ 1 - 2 teeth
- ☐ 3 - 5 teeth
- ☐ More than 5 teeth

63. How long has it been since you **last** visited a dentist? Include all types of dentists, such as orthodontists, oral surgeons, dental hygienists, and all other dental specialists.

Single select

- ☐ Less than 6 months
- ☐ 6 months - 1 year
- ☐ 1 - 2 years
- ☐ 2 - 5 years
- ☐ More than 5 years
- ☐ Never

The following question (#64) is only available to participants who answered "Less than 6 months" or "6 months - 1 year" or "1 - 2 years" or "2 - 5 years" or "More than 5 years" to question #63.

64. What was the main reason you **last** visited a dentist?

Single select

- ☐ Check-up, examination, or cleaning
- ☐ Something was wrong, bothering, or hurting
- ☐ Went in for treatment of a condition that a dentist discovered at an earlier check-up or examination
- ☐ None of the above
- ☐ I'm not sure

65. In a typical week, how often do you brush your teeth?

Single select

- ☐ Twice a day or more
- ☐ Once a day
- ☐ Sometimes
- ☐ Rarely
- ☐ Never
- ☐ I'm not sure

66. In a typical week, how often do you floss your teeth?

Single select

- ☐ Twice a day or more
- ☐ Once a day
- ☐ Sometimes
- ☐ Rarely
- ☐ Never
- ☐ I'm not sure

67. In a typical week, how often do you use mouthwash?

Single select

- ☐ Twice a day or more
- ☐ Once a day
- ☐ Sometimes
- ☐ Rarely
- ☐ Never
- ☐ I'm not sure

68. How often do you limit foods because of teeth problems?

Single select

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Often
- ☐ Always

[7] PAGE: Bowel Habits

69. Which of the following stool types most resembles the one provided for the microbiome sample collection kit?

Single select

Images provided from the Bristol Stool Scale, accessible via Creative Commons.

- ☐ Type 1: Separate hard lumps, like nuts (hard to pass)



- ☐ Type 2: Sausage-shaped, but lumpy



- ☐ Type 3: Like a sausage but with cracks on the surface



☐ Type 4: Like a sausage or snake, smooth and soft



☐ Type 5: Soft blobs with clear cut edges (passed easily)



☐ Type 6: Fluffy pieces with ragged edges, a mushy stool



☐ Type 7: Watery, no solid pieces, entirely liquid



70. Thinking back to when you provided the stool sample, how much time had lapsed between that sample and the bowel movement prior?

Single select

- ☐ Less than 12 hours
- ☐ 12 to 24 hours
- ☐ 24 to 36 hours
- ☐ More than 36 hours

71. Did you face any gastrointestinal discomfort within the 24-hours prior to collecting your stool sample?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

72. How many bowel movements do you have in a typical week?

Single select

- ☐ Less than 3
- ☐ Between 3 and 5
- ☐ Six or more
- ☐ I'm not sure

QUESTION:

The next set of questions (#73-79) refers to your bowel movements over the **past 3 months**. Please look at each image and answer the following questions.

73. QUESTION: During the **past 3 months**, how often have you experienced **stool resembling separate hard lumps, like nuts (hard to pass)**?

Single select

Type 1: Separate hard lumps, like nuts (hard to pass)

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



74. QUESTION: During the **past 3 months**, how often have you experienced **lumpy sausage-shaped stool**?

Single select

Type 2: Sausage-shaped, but lumpy

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



75. QUESTION: During the **past 3 months**, how often have you experienced **sausage-shaped stool with cracks on the surface**?

Single select

Type 3: Like a sausage but with cracks on the surface

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



76. QUESTION: During the **past 3 months**, how often have you experienced **smooth and soft sausage or snake-shaped stool**?

Single select

Type 4: Like a sausage or snake, smooth and soft

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



77. QUESTION: During the **past 3 months**, how often have you experienced **soft blob shaped stool with clear edges (passed easily)**?

Single select

Type 5: Soft blobs with clear cut edges (passed easily)

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



78. QUESTION: During the **past 3 months**, how often have you experienced **fluffy or mushy stool with ragged edges**?

Single select

Type 6: Fluffy pieces with ragged edges, a mushy stool

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



79. QUESTION: During the **past 3 months**, how often have you experienced **liquid stool with no solid pieces**?

Single select

Type 7: Watery, no solid pieces, entirely liquid

- ☐ Never
- ☐ Less than 3 times per week
- ☐ 3-6 times per week
- ☐ Daily
- ☐ 2-3 times per day
- ☐ More than 3 times per day



80. Have you taken a laxative or stool softener in the past month?

Single select

- ☐ Yes
- ☐ No
- ☐ I'm not sure

81. Which of the following conditions have you been diagnosed with, or treated for? Please check all that apply.

- ☐ Inflammatory bowel syndrome
- ☐ Gastroesophageal reflux disease (GERD)
- ☐ Inflammatory bowel disease
- ☐ Heartburn
- ☐ Crohn's disease
- ☐ Ulcerative colitis
- ☐ Celiac disease

- ☐ Diverticulitis
- ☐ Rectal prolapse
- ☐ Other, please specify: _____
- ☐ None of the above

The following question (#82) is only available to participants who answered "Inflammatory bowel syndrome" to question #81.

82. What type of irritable bowel syndrome (IBS) were you diagnosed with?

Single select

- ☐ IBS with predominantly loose or watery stool (IBD-D)
- ☐ IBS with predominantly hard or lumpy stool (IBD-C)
- ☐ IBS with mixed diarrhea and constipation (IBS-M)
- ☐ None of these types (IBS-U)
- ☐ I'm not sure

83. Thank you for your participation. Is there anything more you would like to tell us about your experience in this study?

Free text