

Online Table 1: The association between PFAAs and self-reported memory impairment in logistic regression for a doubling PFAA concentration, by quintiles of PFAAs, and in ordinal regression (n=21,024).

	Range (ng/mL)	Model 1 ^a	Model 2 ^b	Model 3 ^c
PFOS		0.92 (0.89-0.95)	0.93 (0.90-0.96)	0.93 (0.90-0.96)
Ordinal regression		0.95 (0.92-0.97)	0.95 (0.93-0.98)	0.96 (0.93-0.98)
1st quintile	0.25-14.4	Ref.	Ref.	Ref.
2nd quintile	14.5-20.4	0.95 (0.85-1.05)	0.96 (0.87-1.07)	0.97 (0.88-1.08)
3rd quintile	20.5-27.1	0.84 (0.76-0.93)	0.86 (0.78-0.96)	0.87 (0.79-0.97)
4th quintile	27.2-37.2	0.83 (0.75-0.93)	0.87 (0.78-0.96)	0.88 (0.79-0.97)
5th quintile	37.3-759.2	0.81 (0.73-0.91)	0.85 (0.76-0.94)	0.86 (0.77-0.96)
Trend		<0.001	<0.001	0.001
PFOA		0.95 (0.94-0.97)	0.96 (0.94-0.98)	0.96 (0.94-0.98)
Ordinal regression		0.97 (0.95-0.98)	0.97 (0.96-0.98)	0.97 (0.96-0.99)
1st quintile	0.25-14.0	Ref.	Ref.	Ref.
2nd quintile	14.1-27.0	0.86 (0.78-0.96)	0.88 (0.79-0.97)	0.88 (0.80-0.98)
3rd quintile	27.1-53.8	0.82 (0.74-0.91)	0.83 (0.75-0.92)	0.84 (0.76-0.93)
4th quintile	53.9-118.1	0.77 (0.70-0.86)	0.79 (0.71-0.88)	0.81 (0.73-0.90)
5th quintile	118.3-22,412	0.76 (0.69-0.85)	0.79 (0.71-0.88)	0.80 (0.72-0.90)
Trend		<0.001	<0.001	<0.001
PFNA		0.94 (0.90-0.98)	0.96 (0.91-1.00)	0.96 (0.92-1.01)
Ordinal regression		0.96 (0.93-0.99)	0.97 (0.94-1.01)	0.98 (0.94-1.01)
1st quintile	0.25-0.90	Ref.	Ref.	Ref.
2nd quintile	1.0-1.2	0.85 (0.77-0.94)	0.86 (0.78-0.96)	0.87 (0.78-0.96)
3rd quintile	1.3-1.4	0.85 (0.76-0.95)	0.87 (0.77-0.98)	0.88 (0.78-0.98)
4th quintile	1.5-1.9	0.83 (0.75-0.92)	0.86 (0.77-0.95)	0.86 (0.78-0.95)
5th quintile	2.0-28.6	0.85 (0.76-0.94)	0.89 (0.80-0.99)	0.90 (0.81-1.01)
Trend		0.004	0.053	0.079
PFHxS		0.95 (0.92-0.98)	0.96 (0.93-0.99)	0.97 (0.94-1.00)
Ordinal regression		0.96 (0.94-0.99)	0.97 (0.94-0.99)	0.97 (0.95-0.99)
1st quintile	0.25-1.7	Ref.	Ref.	Ref.
2nd quintile	1.8-2.6	1.00 (0.90-1.11)	1.01 (0.91-1.12)	1.02 (0.91-1.13)
3rd quintile	2.7-3.6	1.00 (0.90-1.11)	1.02 (0.91-1.13)	1.03 (0.93-1.15)
4th quintile	3.7-5.6	0.91 (0.82-1.02)	0.93 (0.84-1.04)	0.96 (0.86-1.06)
5th quintile	5.7-232.6	0.86 (0.77-0.96)	0.89(0.79-0.99)	0.92 (0.82-1.02)
Trend		0.001	0.009	0.053

Online Table 2: The association between PFAAs and self-report memory impairment for a doubling PFAA concentration and by tertiles of distribution by self-reported anti-diabetic treatment

	Range (ng/ML)	N	PFOS OR (95% CI)*	Range (ng/ML)	PFOA OR (95% CI)*	Range (ng/ML)	PFNA OR (95% CI)*	Range (ng/ML)	PFHxS OR (95% CI)*
Thiazolidinedione use		809	1.00 (0.86-1.16)		0.97 (0.88-1.07)		0.94 (0.74-1.19)		1.02 (0.87-1.20)
Ordinal regression			1.06 (0.93-1.20)		1.03 (0.95-1.11)		1.02 (0.84-1.25)		1.05 (0.92-1.20)
1st tertile	0.25-17.9		Ref.	1.1-17.5	Ref.	0.25-1.0	Ref.	0.25-1.9	Ref.
2nd tertile	18.0-29.9		0.76 (0.50-1.16)	17.6-49.7	0.72 (0.47-1.10)	1.1-1.5	0.83 (0.54-1.26)	2.0-3.5	1.56 (1.02-2.38)
3rd tertile	30.1-104.9		0.93 (0.61-1.42)	19.9-8,068	0.81 (0.53-1.24)	1.6-14.7	0.79 (0.51-1.23)	3.6-84.0	1.13 (0.72-1.77)
p-value for trend			0.737		0.333		0.309		0.628
Other medications		1,244	0.90 (0.80-1.01)		1.00 (0.93-1.07)		0.95 (0.79-1.15)		0.91 (0.81-1.03)
Ordinal regression			0.92 (0.83-1.01)		1.00 (0.93-1.07)		0.94 (0.81-1.10)		0.94 (0.86-1.04)
1st tertile	0.25-17.9		Ref.	0.25-20.5	Ref.	0.25-1.1	Ref.	0.25-2.1	Ref.
2nd tertile	18.0-29.8		0.75 (0.54-1.04)	20.6-63.2	0.99 (0.71-1.39)	1.2-1.6	0.72 (0.52-1.01)	2.2-3.6	0.99 (0.71-1.38)
3rd tertile	29.9-218.0		0.68 (0.48-0.95)	63.4-2,316.2	0.92 (0.66-1.29)	1.7-6.0	0.85 (0.61-1.20)	3.7-99.7	0.82 (0.58-1.16)
p-value for trend			0.023		0.644		0.341		0.259
No medication		1,390	0.95 (0.85-1.07)		1.00 (0.94-1.08)		1.03 (0.87-1.23)		1.01 (0.90-1.13)
Ordinal regression			0.94 (0.86-1.03)		1.00 (0.95-1.06)		0.98 (0.85-1.13)		0.99 (0.90-1.08)
1st tertile	0.25-18.3		Ref.	0.7-20.2	Ref.	0.25-1.0	Ref.	0.25-2.1	Ref.
2nd tertile	18.4-29.3		1.11 (0.81-1.52)	20.3-63.4	1.05 (0.77-1.44)	1.1-1.5	1.01 (0.72-1.40)	2.2-3.7	0.93 (0.68-1.28)
3rd tertile	29.4-272.0		1.02 (0.74-1.40)	63.5-22,412	0.99 (0.72-1.37)	1.6-14.5	1.12 (0.81-1.54)	3.8-43.3	0.99 (0.72-1.37)
p-value for trend			0.897		0.984		0.473		0.957

*using clinical record validated diagnosis of diabetes and self-reported use of medications, adjusted for age (one-year age bands), ethnicity, gender, school level (categorical), household income (categorical), physical activity, alcohol consumption (categorical, none/<1drink/month, < 1 drink/week, few drinks/week, 1-3 drinks/day, >3 drinks/day, undetermined), and cigarette smoking (categorical, never, former, < 10 cig/day, 12-20 cig/day, 20+ cig/day); † OR for doubling PFAA concentration