

Table 1. Female and Male Absolute Anogenital Distance (mm) and Anogenital Index ¹																									
		Vehicle			BPA 2.5 (µg/kg)			BPA 8 (µg/kg)			BPA 25 (µg/kg)			BPA 80 (µg/kg)			BPA 260 (µg/kg)			BPA 840 (µg/kg)			BPA 2700 (µg/kg)		
Sex	Data	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
F	AGD	107	2.812	0.020	117	2.882	0.014	85	2.762	0.025	113	2.908	0.011	118	2.876	0.018	106	2.875	0.017	106	2.863	0.015	120	2.902	0.012
	IAGD ¹	107	1.472	0.012	117	1.505	0.010	85	1.462	0.013	113	1.530	0.009	118	1.512	0.008	106	1.515	0.009	106	1.504	0.009	120	1.521	0.008
M	AGD	112	4.807	0.027	125	4.897	0.023	89	4.739	0.035	116	4.917	0.014	122	4.825	0.023	113	4.817	0.023	104	4.843	0.020	118	4.908	0.016
	IAGD ¹	112	2.473	0.016	125	2.518	0.013	89	2.441	0.017	116	2.513	0.011	122	2.488	0.011	113	2.502	0.012	104	2.489	0.011	118	2.520	0.011

Table 1. Female and Male Absolute Anogenital Distance (mm) and Anogenital Index ¹																
		BPA 100,000 (µg/kg)			BPA 300,000 (µg/kg)			EE ₂ 0.5 (µg/kg)			EE ₂ 5.0 (µg/kg)			Naive Control		
Sex	Data	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
F	AGD	116	2.890	0.014	123	2.870	0.014	97	2.850	0.018	99	2.860	0.019	119	2.844	0.019
	IAGD ¹	116	1.525	0.009	123	1.525	0.008	97	1.521	0.008	99	1.533	0.011	119	1.503	0.010
M	AGD	118	4.916	0.015	122	4.885	0.020	93	4.821	0.027	100	4.871	0.019	119	4.826	0.024
	IAGD ¹	118	2.544	0.011	122	2.543	0.012	93	2.514	0.012	100	2.543	0.012	119	2.490	0.013

¹ For analysis of anogenital index, the average of three measurements of anogenital distance was divided by the cube root of body weight.

Table 2. ANOVA ¹ Results for Group Effect on Anogenital Distance on PND 1 with Anogenital Index					
Sex	Effect	NumDF	DenDF	FValue	ProbF
F	Group	12	288	1.030	0.421
M	Group	12	288	1.356	0.187

¹ ANOVA was performed separately for each sex using anogenital index.

Statistical Analysis of Anogenital Distance PND 1

Table 3. Females and Males ANOVA Comparison³ of Least Square Mean Anogenital Distance¹ Across Dose Groups on PND 1 with Anogenital Index

		Treatments																							
		Vehicle			BPA 2.5 (µg/kg)			BPA 8 (µg/kg)			BPA 25 (µg/kg)			BPA 80 (µg/kg)			BPA 260 (µg/kg)			BPA 840 (µg/kg)			BPA 2700 (µg/kg)		
Sex		Mean	S.E.	P-val ²	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
F		1.476	0.018	0.250	1.506	0.017	0.740	1.466	0.021	1.000	1.526	0.018	0.235	1.511	0.018	0.601	1.517	0.018	0.438	1.505	0.019	0.780	1.520	0.018	0.349
M		2.475	0.025	0.284	2.519	0.023	0.658	2.441	0.028	0.893	2.510	0.024	0.858	2.489	0.024	0.999	2.504	0.025	0.945	2.493	0.025	0.996	2.516	0.024	0.734

Table 3. Females and Males ANOVA Comparison³ of Least Square Mean Anogenital Distance¹ Across Dose Groups on PND 1 with Transformed Data

		Treatments														
		BPA 100,000 (µg/kg)			BPA 300,000 (µg/kg)			EE ₂ 0.5 (µg/kg)			EE ₂ 5.0 (µg/kg)			Naive Control		
Sex		Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
F		1.525	0.018	0.103	1.525	0.018	0.102	1.520	0.020	0.174	1.531	0.019	0.074	1.500	0.018	0.337
M		2.543	0.024	0.095	2.542	0.024	0.099	2.515	0.027	0.454	2.548	0.026	0.080	2.486	0.024	0.748

¹ All p-values are relative to the control group, except p-values for the linear trend are presented under the control group

² Correlation between litter-mates is accounted for in the analysis.

³ Analysis was performed using anogenital index.

Table 4. Female and Male ANOVA Anogenital Distance Least Square Mean Treatment Percent of Vehicle with Anogenital Index

		Treatments											
		BPA 2.5	BPA 8	BPA 25	BPA 80	BPA 260	BPA 840	BPA 2700	BPA 100,000	BPA 300,000	EE ₂ 0.5	EE ₂ 5.0	Naive Control
Sex		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
F		102.0	99.4	103.4	102.4	102.8	102.0	103.0	103.3	103.3	103.0	103.7	101.7
M		101.8	98.6	101.4	100.5	101.1	100.7	101.7	102.7	102.7	101.6	102.9	100.4

Table 5. Female and Male ANOVA Anogenital Distance Unadjusted P-values for Females and Males with Anogenital Index

		Treatments											
		BPA 2.5	BPA 8	BPA 25	BPA 80	BPA 260	BPA 840	BPA 2700	BPA 100,000	BPA 300,000	EE ₂ 0.5	EE ₂ 5.0	Naive Control
Sex		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
F		0.238	0.735	0.052	0.172	0.111	0.262	0.083	0.057	0.056	0.099	0.041	0.337
M		0.197	0.352	0.319	0.699	0.421	0.615	0.235	0.053	0.055	0.283	0.044	0.748

Table 6. ANOCOVA ¹ Results for Group Effect on Anogenital Distance on PND 1 with Body Weight Covariate					
Sex	Effect	NumDF	DenDF	FValue	ProbF
F	Group	12	288	1.039	0.413
	Body Weight	1	1124	24.722	0.000
M	Group	12	288	1.311	0.211
	Body Weight	1	1149	58.180	0.000

¹ ANOCOVA was performed separately for each sex using absolute anogenital distance with covariate body weight.

Statistical Analysis of Anogenital Distance PND 1

Table 7. Females and Males ANOCOVA Comparison³ of Least Square Mean Anogenital Distance¹ Across Dose Groups on PND 1 with Body Weight Covariate

		Treatments																							
		Vehicle			BPA 2.5 (µg/kg)			BPA 8 (µg/kg)			BPA 25 (µg/kg)			BPA 80 (µg/kg)			BPA 260 (µg/kg)			BPA 840 (µg/kg)			BPA 2700 (µg/kg)		
Sex	Mean	S.E.	P-val ²	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	
F	2.815	0.033	0.143	2.879	0.031	0.582	2.771	0.037	0.919	2.903	0.032	0.265	2.870	0.032	0.733	2.872	0.033	0.721	2.862	0.034	0.863	2.899	0.032	0.292	
M	4.803	0.044	0.145	4.897	0.041	0.473	4.736	0.050	0.848	4.906	0.043	0.394	4.827	0.042	0.999	4.822	0.044	1.000	4.845	0.045	0.979	4.900	0.042	0.441	

Table 7. Females and Males ANOCOVA Comparison³ of Least Square Mean Anogenital Distance¹ Across Dose Groups on PND 1 with Body Weight Covariate

		Treatments														
		BPA 100,000 (µg/kg)			BPA 300,000 (µg/kg)			EE ₂ 0.5 (µg/kg)			EE ₂ 5.0 (µg/kg)			Naive Control		
Sex	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	
F	2.887	0.032	0.211	2.873	0.032	0.346	2.856	0.036	0.605	2.860	0.035	0.551	2.841	0.032	0.576	
M	4.917	0.043	0.116	4.890	0.042	0.261	4.836	0.047	0.830	4.884	0.046	0.341	4.822	0.042	0.764	

¹ All p-values are relative to the control group, except p-values for the linear trend are presented under the control group

² Correlation between litter-mates is accounted for in the analysis.

Table 8. Female and Male ANOCOVA Anogenital Distance Least Square Mean Treatment Percent of Vehicle with Body Weight Covariate

		Treatments											
		BPA 2.5	BPA 8	BPA 25	BPA 80	BPA 260	BPA 840	BPA 2700	BPA 100,000	BPA 300,000	EE ₂ 0.5	EE ₂ 5.0	Naive Control
Sex		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
F		102.3	98.4	103.1	101.9	102.0	101.7	103.0	102.6	102.1	101.5	101.6	100.9
M		101.9	98.6	102.1	100.5	100.4	100.9	102.0	102.4	101.8	100.7	101.7	100.4

Table 9. Female and Male ANOCOVA Anogenital Distance Unadjusted P-values with Body Weight Covariate

		Treatments											
		BPA 2.5	BPA 8	BPA 25	BPA 80	BPA 260	BPA 840	BPA 2700	BPA 100,000	BPA 300,000	EE ₂ 0.5	EE ₂ 5.0	Naive Control
Sex		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
F		0.164	0.382	0.059	0.234	0.228	0.323	0.067	0.122	0.208	0.397	0.354	0.576
M		0.123	0.310	0.097	0.692	0.762	0.506	0.112	0.065	0.153	0.612	0.205	0.764