Supplementary File 8: generalised additive models for offspring wet weight

Generalised additive models were fitted using cubic regression splines. Maternal age was included as an explanatory variable and individual mother included as a random effect. Akaike's information criteria corrected for small sample size (AICc) was used to decide the most parsimonious number of knots (Tables 1 to 3). For each treatment, the model with the lowest AICc was then compared with model fits assuming a quadratic relationship between maternal age and offspring wet weight.

Table 1: Control treatment: AICc by number of knots

Number of knots	AICc
3	2736.923
4	2738.776
5	2737.819
6	2737.126
7	2737.803
8	2738.164
9	2738.357
10	2738.374

Table 2: Mating delay treatment: AICc by number of knots

Number of knots	AICc
3	1619.453
4	1614.924
5	1617.139
6	1616.524
7	1616.037
8	1614.276
9	1615.786
10	1615.227

Table 3: Nutritional stress treatment: AICc by number of knots

Number of knots	AICc
3	1921.415
4	1916.637
5	1918.073
6	1918.483
7	1917.706
8	1917.050
9	1917.720
10	1917.567

Figure 1. Comparison of generalised additive (GAM) and quadratic model fits for the effect of maternal age on offspring wet weight. Black dashed lines - quadratic fit, solid lines - GAM fits and standard error.