

Figure S1. Example bolus (outlined in white) during swallowing in a term seven day old pig. White arrow indicates previously aspirated liquid in the airway.



Figure S2. Term infants swallowed larger size corrected boluses than preterm infants at both ages, and although term infant bolus size increased substantially by day 17 (B), preterm bolus size did not, especially within lesioned individuals. We found no effect of lesion status on bolus size. Effect of lesion indicated by 'a' within groups; effect of birth age indicated by a black 'b'; effect of age indicated by a * on the day 17 plot.

	Raw mean (±sd)	Size corrected mean $(\pm sd)$
Preterm 7 Control	84.9 ± 33.1	0.55 ± 0.25
Preterm 7 Lesion	95.6 ± 46.2	0.62 ± 0.39
Term 7 Control	137.9 ± 51.5	0.83 ± 0.38
Term 7 Lesion	127.4 ± 44.7	0.74 ± 0.29
Preterm 17 Control	106.5 ± 46.3	0.52 ± 0.27
Preterm 17 Lesion	94.6 ± 44.5	0.39 ± 0.19
Term 17 Control	174.7 ± 34.1	0.89 ± 0.25
Term 17 Lesion	159.8 ± 28.9	0.77 ± 0.22

Table S1. Mean \pm standard deviation bolus sizes for raw bolus size and corrected bolus size.

Table S2. Model averaged coefficients \pm std. error for predicting IMPAS based on corrected area	ł,
birth age (Preterm or term, PT_T), Age, and Lesion. Area and Birth age were strongly predictive	9
of IMPAS, whereas age and lesion status had little effect.	

	Estimate	Z	р
3 Std Area	2.04 ± 0.3	7.5	<0.001
3 PT_T	1.15 ± 0.2	6.7	<0.001
7 Std Area	3.45 ± 0.4	9.3	<0.001
7 PT_T	1.49 ± 0.2	5.9	<0.001
3 Age	0.27 ± 0.2	1.7	0.09
7 Age	0.10 ± 0.2	0.4	0.67
3 Lesion	-0.07 ± 0.2	0.4	0.68
7 Lesion	-0.26 ± 0.2	1.1	0.28

Bolded values indicate statistically significant values