



## Future compartments for PBPK iodide /perchlorate model

lladd to: Thomas Carpenter

Cc:

Please respond to lladd

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This comment is primarily addressed to Dr. Fisher.

In the thyroid compartment you need to model when lack of iodide triggers intrathyroidal VEGF

1. <http://ajpendo.physiology.org/content/296/6/E1414.long>

2. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2832155/>

to the point where the B-19 parvovirus can enter the thyroid in a manner similar to this experiment.

3. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1365046/>

One reason to consider B-19 parvovirus infection and thyroid autoimmunity a possible mechanism for perchlorate toxicity is that the virus produces the anemia and phospholipid antibodies reported amongst medical users of perchlorate in the 1950s and 1960s. 4.

<http://www.ncbi.nlm.nih.gov/pubmed/4181403>

For a kidney compartment in the infant you need to look at how acidosis or low bicarbonate influences perchlorate and iodide excretion.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041483/>

For a skin compartment exam how perchlorate and iodide together may alter the efficacy of human beta defensin 2.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041483/>