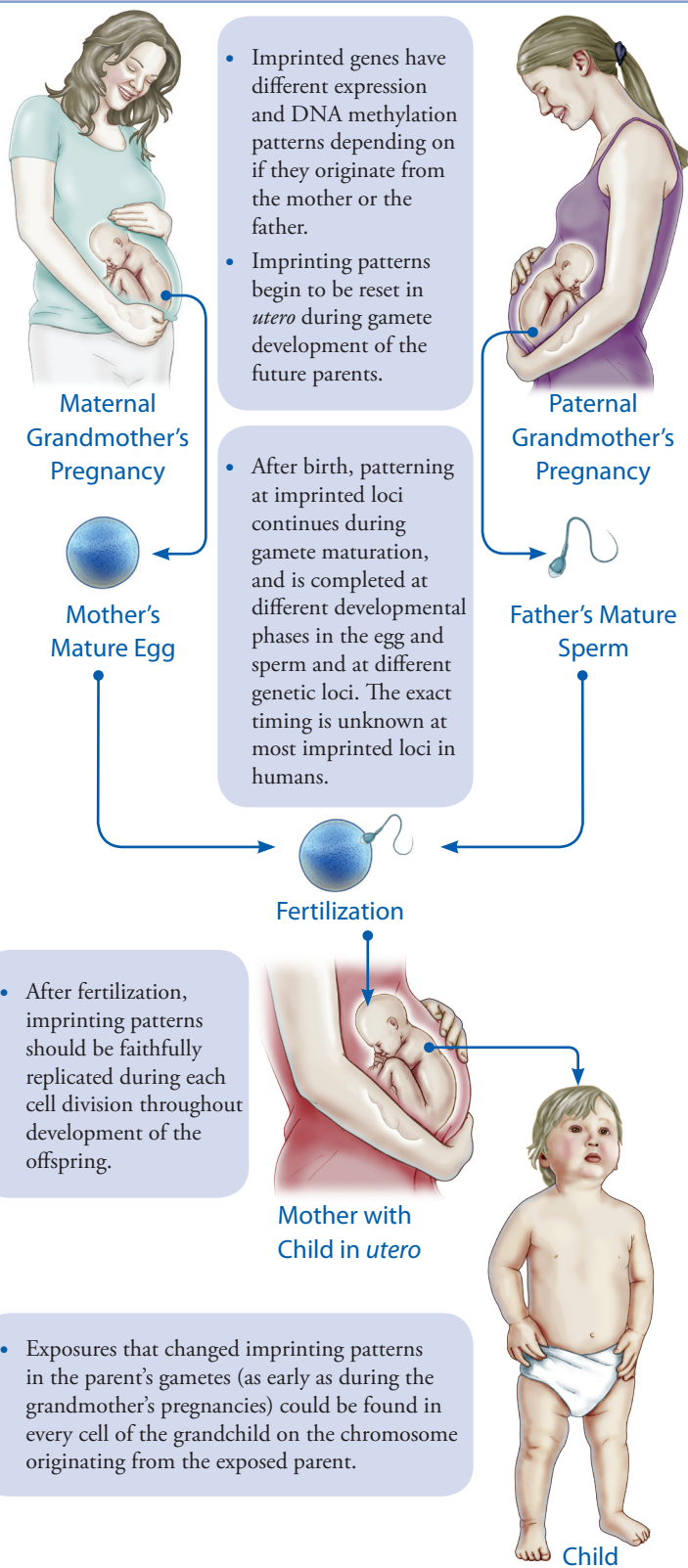
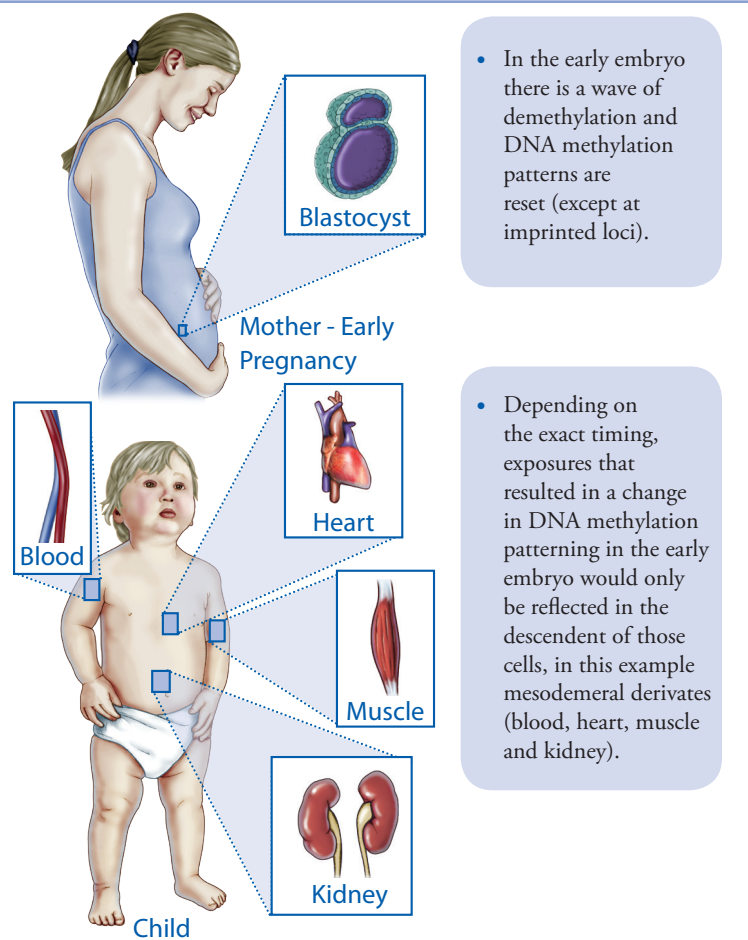


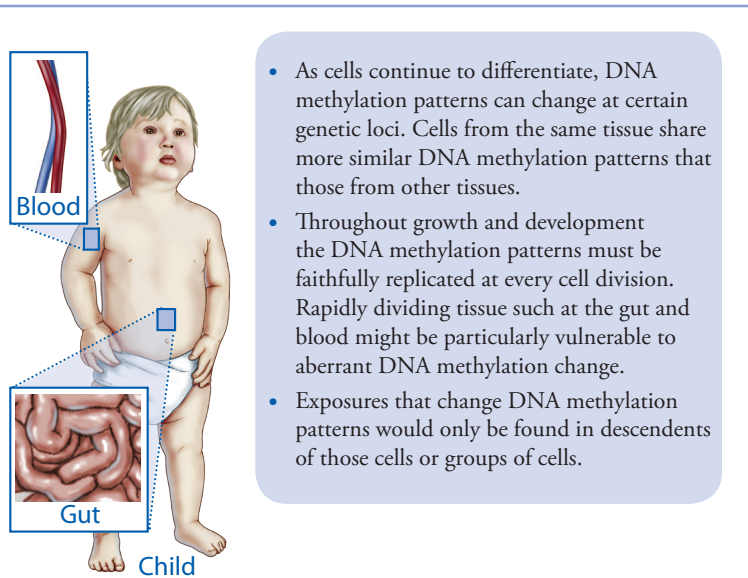
A. Imprinting Patterning



B. Patterning in the early embryo



C. Patterning during development



Supplemental Figure 1. Timing of DNA Methylation Patterning. The DNA methylation patterns in an individual are determined during critical windows during development. Many of the details of DNA methylation patterning during human development remain unknown. The purpose of this figure is to provide a very broad overview and illustrate (1) the times during development that DNA methylation patterns are set, and thus times that may be particularly sensitive and (2) the possible tissues impacted at specific developmental windows and the distance in time between exposures of interest and the impact on an individual. **A.** Imprinting patterns are set in the gamete of the parent, starting during the parents embryonic period; the precise timing for each loci is still under investigation (184). The DNA methylation patterns at imprinted loci may reflect exposures experienced by the grandmother when the parent was in *utero* through the gametogenesis period until fertilization, if the changes resulting from an exposure are inherited like a somatic mutation, this is under active investigation. **B.** The DNA methylation patterns of the majority of the genome are re-patterned in the early embryo (89). Exposures during this small window of time in the days after conception may be reflected in many tissues depending on the exact timing and affected cell lineages. **C.** Throughout development, a limited subset of loci change methylation patterns as cells differentiate (88, 185). Exposures later in development would only affect those limited loci that are differentiating in the affected tissues.