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*Information for Contributors is available online at
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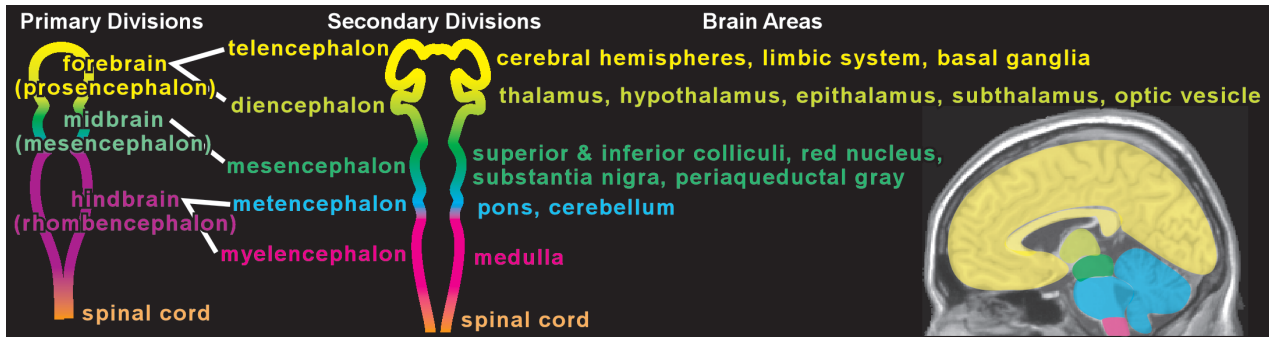
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Section Editors

Developmental Origins for Neuropsychiatric Illness

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FIGURE 1. The neural tube (illustrated in schematic form) expands locally to form the three primary divisions or vesicles (left).¹ These, in turn, form the five secondary divisions (middle). The forebrain vesicle (prosencephalon [yellow]) subdivides into telencephalon (yellow) and diencephalon (light green). The hindbrain vesicle (rhombencephalon [purple]) subdivides into the metencephalon (blue) and myelencephalon (pink). The areas of brain that each of these becomes are listed and color-coded onto a sagittal MRI (right).



COVER and FIGURE 2. Major phases in prenatal development of the cerebrum are illustrated on schematics of coronal brain sections.²⁻⁸ The approximate locations of sections are indicated on drawings of brains color-coded as in Figure 1. Note that the change in shape of the cerebral hemispheres, although often described as rotation, is actually a result of cortical expansion, with little movement of the frontal and temporal poles. In the early fetal phase (left) subcortical nuclei and their associated fiber tracts are already well along in development. Axons from brainstem (not illustrated) and basal forebrain (gold) have made synaptic contact in the regions above the cortical plate (marginal zone, not illustrated) and below the cortical plate (presubplate or subplate, dark gray), whereas most thalamocortical axons (red) have not yet passed through the corticostriatal junction. Thalamocortical axons make synaptic contact in the subplate in the midfetal phase (middle). All of these axons wait in the subplate until the early preterm phase (right), when they invade the cortical plate and establish synaptic contacts.

