

## **Preventing Schizophrenia before It Starts**

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### **Types of Prevention**

- Primary—intervention during fetal brain development
- Secondary—intervention during the prodrome of schizophrenia in adolescence
- Tertiary—enhanced early treatment of first and second episodes

### **Primary Prevention during Pregnancy by Choline Supplementation**

- Normal ingredient in liver, eggs, and meats.
- Pregnant women often cannot keep up with the demands of the baby
- Stress, anxiety, depression, infection, and nicotine use during pregnancy all increase the risk for mental illness in the baby and may be overcome by increasing choline.
- The single greatest risk factor, genetic risk, may be overcome by increasing choline as well. Phosphatidylcholine is available as a natural vitamin.

### **Secondary Prevention in Teenage years:**

- About 20% of properly identified youth with early signs of hallucinations, school failure, and substance abuse will develop schizophrenia.
- Prediction of who will become ill is still imprecise, but improving.
- Early treatment has little (CBT) or no preventive effect (medication), but may be appropriate for current symptoms

### **Tertiary Prevention after the First Episode**

- Early identification and treatment saves lives
- Marijuana use accelerates cognitive decline

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### **Further reading:**

Prenatal choline and the development of schizophrenia  
Robert FREEDMAN and Randal G. ROSS  
Shanghai Arch Psychiatry. 2015 Apr 25; 27(2): 90-102.  
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