# Use of Electroconvulsive Therapy on an Adolescent Inpatient Psychiatric Unit

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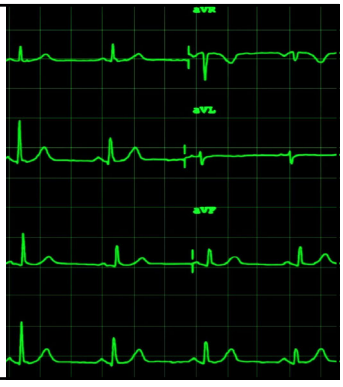
## Key Points

- ECT is a safe and effective treatment option for children and adolescents.
- Exact mechanism of action is unknown.
- Catatonia and treatment-resistant mood disorder/psychosis are the most common indications for its use.
- It is important to educate patients and parents about the procedure to obtain consent and dispel misconceptions.
- More randomized controlled trials are needed in this population to further determine efficacy and safety and explore new indications.

## Introduction

- Electroconvulsive therapy (ECT) is an established and safe treatment of various psychiatric disorders.
- No age restrictions
- Data is mostly derived from adult populations
- The efficacy and safety of pediatric ECT are largely established from retrospective studies, case series, and reviews.



## History of Electroconvulsive Therapy

**Origins:**
- Convulsive therapy for catatonic schizophrenia (pentylenetetrazol), ECT pioneered by Cerletti & Bini.

**Early Pediatric Use:**
- 1943: – Effective for melancholia in children, inconsistent for mania, not helpful for schizophrenia.
- 1947: Lauretta Bender treated 98 children with "childhood schizophrenia" using ECT—showed behavioral improvements.

**Decline & Resurgence:**
- Decline due to neuroleptics and stigma (Hollywood's negative portrayal).
- Renewed interest in the 1990s—modern studies show safety and efficacy in adolescents.

## Legal Aspects

**FDA Reclassification:**
- ECT devices reclassified from **Class III** (highest risk) to **Class II** (moderate risk) for ages **13+**.
- Approved for **severe major depression, bipolar depression, and catatonia**.

**State Regulations:**
- Vary widely by state.

## Ethical Considerations

ECT is safe and ethical to use in adolescence

Although most states allow for the treatment with consent from parents of a minor, it is extremely important to involve patient in discussion and obtain their assent.

## Indications

- Treatment-resistant depression
- Schizophrenia Spectrum Disorders
- Catatonia
- Refractory Self-injurious behavior
- Neuroleptic malignant syndrome
- Severe suicidality

## Severity of Symptoms

- The refusal to eat or drink
- severe suicidality
- uncontrollable mania
- florid psychosis minimal standards

## Lack of Treatment Response

- *CT may be considered earlier in cases in which:*
  - *(1) adequate medication trials are not possible because of the patient's inability to tolerate psychopharmacological treatment*
  - *(2) the adolescent is grossly incapacitated and thus cannot take medication*
  - *(3) waiting for a response to a psychopharmacological treatment may endanger the life of the adolescent [MS]*

## Contraindications

- CNS tumors
- Active chest infection
- Recent myocardial infarction (MI)

## Electrode Placement

- Varies depending on the clinical presentation and treatment goals.
- Bilateral electrode placement
- Right unilateral treatment
- Changing from unilateral to bilateral treatment

## Side effects

| | | |
|---|---|---|
| Headache | Confusion | Subjective memory loss |
| Agitation | Nausea or vomiting | Muscle Aches |