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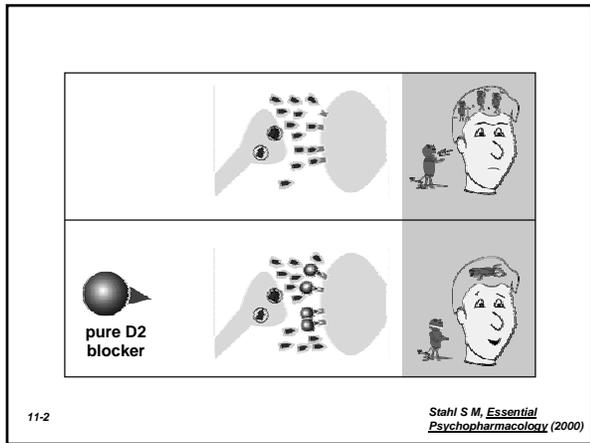
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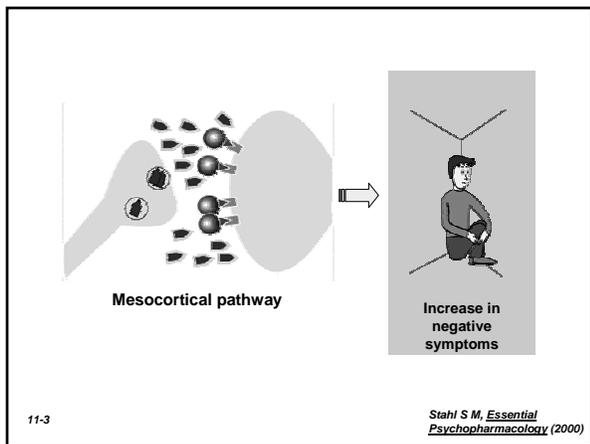
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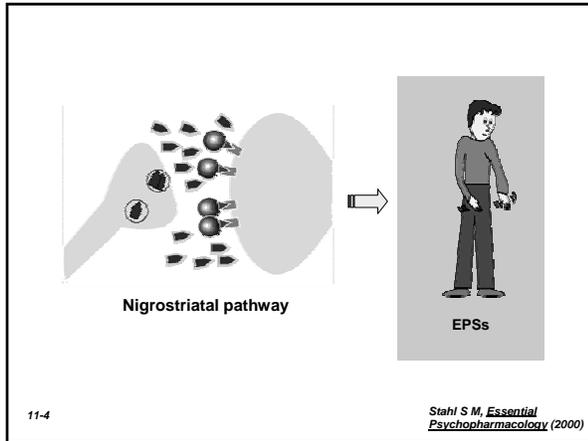
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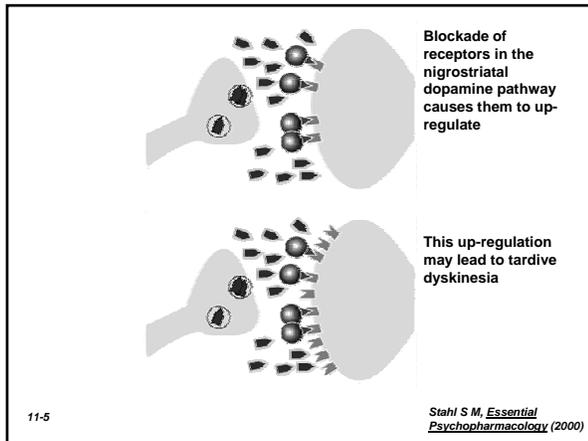
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**Motor and mental features of neuroleptic-induced extrapyramidal side effects**

|                           |  |
|---------------------------|--|
| <b>Parkinsonism</b>       | Tremor (resting), rigidity, bradykinesia, masklike facies  |
| <b>Akathisia</b>          | Restlessness, pacing, fidgeting, shifting from jitteriness, anxiety, irritability, anger, difficulty concentrating                               |
| <b>Dystonia</b>           | Muscle contractions, tongue protrusion, torticollis, opisthotonos, fear, distress, paranoia  |
| <b>Tardive dyskinesia</b> | Buccolingual-masticatory movements of irregular (nonrhythmic) nature; choreiform or athetoid (writhing) movements of fingers, extremities, trunk |

Adapted from Ayd 1995; Casey 1995

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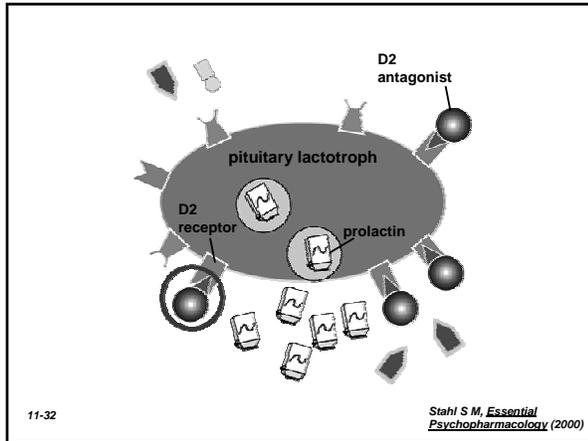
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**Typical antipsychotic drugs: potencies and side effect profiles**

| Drug                        | Approximate dose (mg) | Sedative effect | Hypotensive effect | Anticholinergic effect | Extrapyramidal effect |
|-----------------------------|-----------------------|-----------------|--------------------|------------------------|-----------------------|
| <b>Phenothiazines</b>       |                       |                 |                    |                        |                       |
| Chlorpromazine (Thorazine)  | 100                   | H               | H                  | M                      | L                     |
| <b>Piperidines</b>          |                       |                 |                    |                        |                       |
| Thioridazine (Mellaril)     | 95                    | H               | H                  | H                      | L                     |
| <b>Piperazines</b>          |                       |                 |                    |                        |                       |
| Fluphenazine (Prolixin)     | 2                     | M               | L                  | L                      | H                     |
| Perphenazine (Trilafon)     | 8                     | L               | L                  | L                      | H                     |
| Trifluoperazine (Stelazine) | 5                     | M               | L                  | L                      | H                     |
| <b>Thioxanthene</b>         |                       |                 |                    |                        |                       |
| Thiothixene (Navane)        | 5                     | L               | L                  | L                      | H                     |
| <b>Butyrophenones</b>       |                       |                 |                    |                        |                       |
| Haloperidol (Haldol)        | 2                     | L               | L                  | L                      | H                     |

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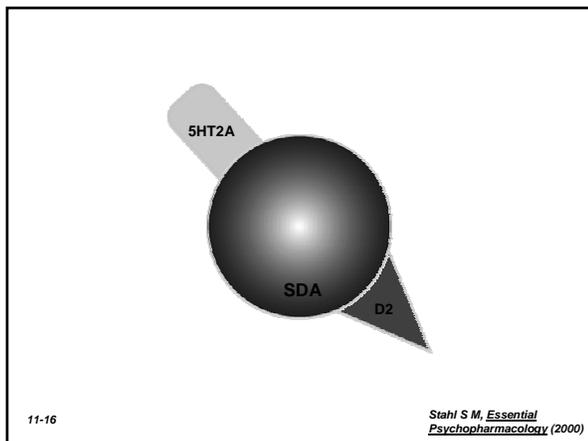
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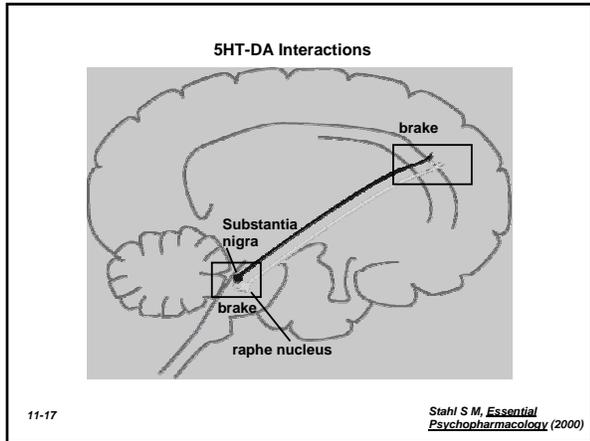
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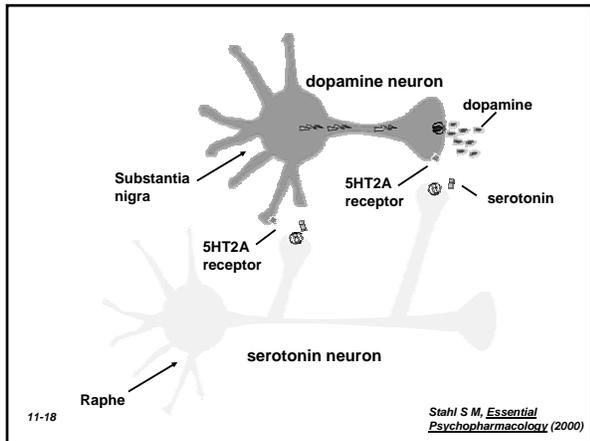
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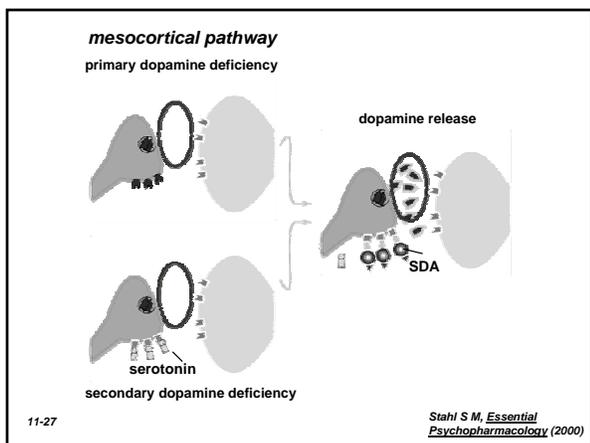
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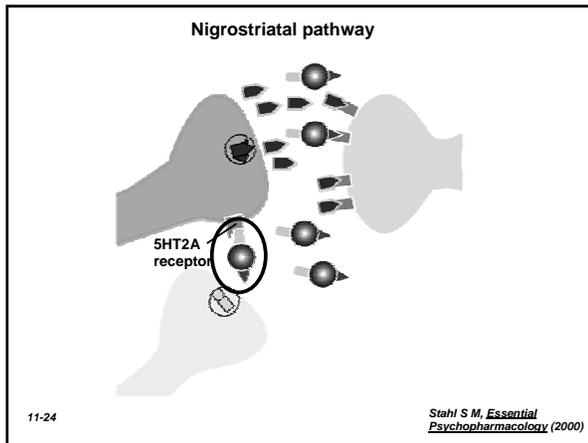
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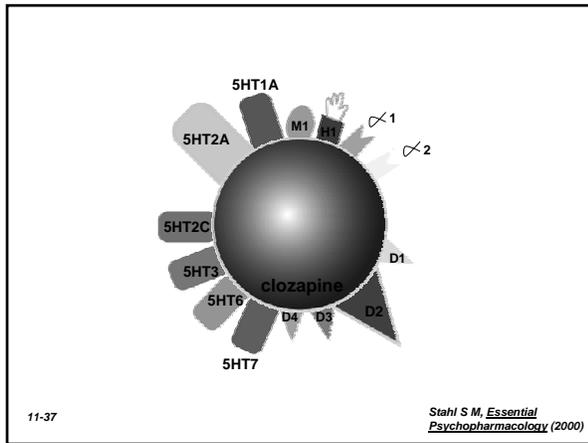
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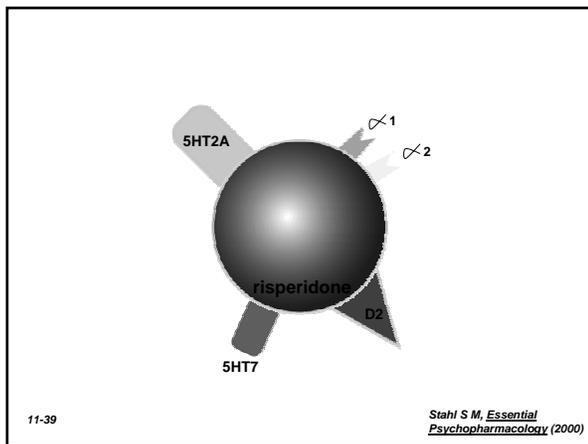
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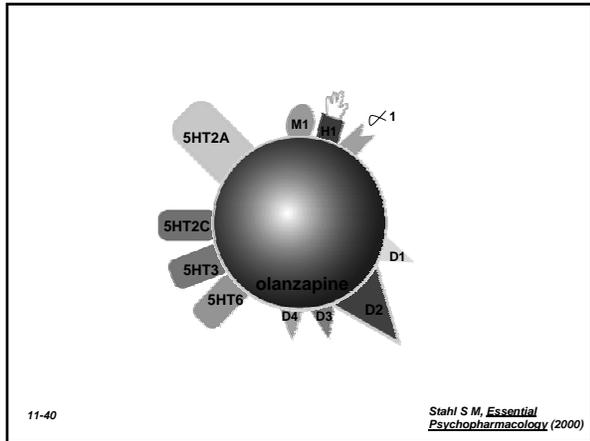
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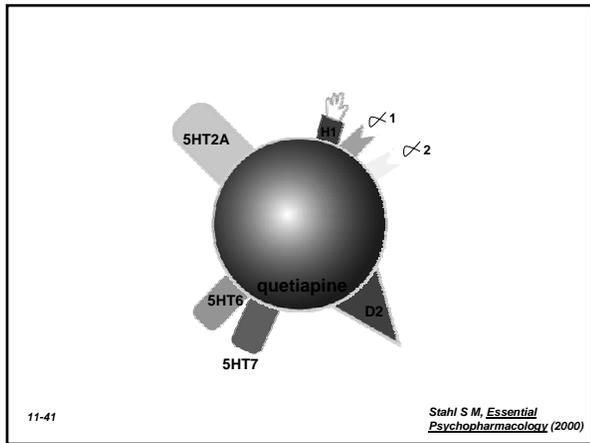
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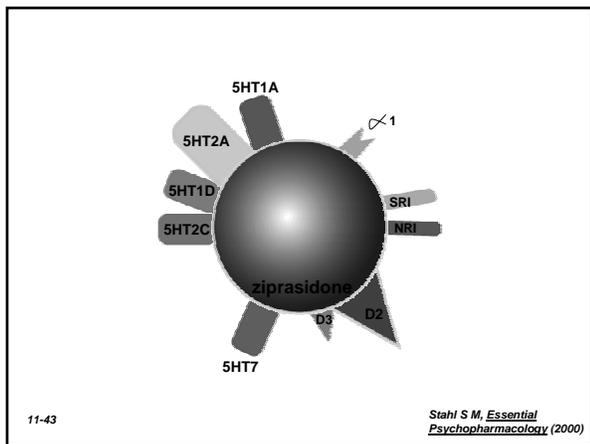
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## Side effects of selected atypical agents

Table 4. Selected Side Effects of Commonly Used Antipsychotic Medications<sup>a</sup>

| Medication                | Extrapyramidal side effects |                      |                |                          |                        |                     |          |             |                                 |     |
|---------------------------|-----------------------------|----------------------|----------------|--------------------------|------------------------|---------------------|----------|-------------|---------------------------------|-----|
|                           | Larive<br>Droitness         | Proctin<br>Elevation | Weight<br>Gain | Glucose<br>Abnormalities | Lipid<br>Abnormalities | QTC<br>Prolongation | Sedation | Hypotension | Anticholinergic<br>Side Effects |     |
| Thioridazine              | +                           | ++                   | +              | +                        | +                      | ++                  | ++       | ++          | ++                              | ++  |
| Perphenazine              | ++                          | ++                   | +              | +                        | +                      | 0                   | +        | +           | 0                               | 0   |
| Haloperidol               | +++                         | +++                  | +              | 0                        | 0                      | 0                   | ++       | 0           | 0                               | 0   |
| Clozapine <sup>b</sup>    | 0 <sup>c</sup>              | 0                    | +++            | +++                      | +++                    | 0                   | +++      | +++         | +++                             | +++ |
| Risperidone               | +                           | +++                  | ++             | ++                       | ++                     | +                   | +        | +           | 0                               | 0   |
| Olanzapine                | 0 <sup>c</sup>              | 0                    | +++            | +++                      | +++                    | 0                   | +        | +           | ++                              | ++  |
| Quetiapine <sup>d</sup>   | 0 <sup>c</sup>              | 0                    | ++             | ++                       | ++                     | 0                   | ++       | ++          | 0                               | 0   |
| Ziprasidone               | 0 <sup>c</sup>              | +                    | 0              | 0                        | 0                      | ++                  | 0        | 0           | 0                               | 0   |
| Aripiprazole <sup>e</sup> | 0 <sup>c</sup>              | 0                    | 0              | 0                        | 0                      | 0                   | +        | 0           | 0                               | 0   |

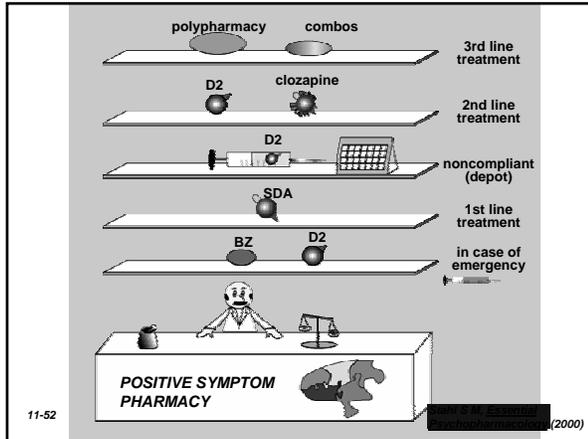
<sup>a</sup>0 = No risk or rarely causes side effects at therapeutic dose; + = Mild or occasionally causes side effects at therapeutic dose; ++ = Sometimes causes side effects at therapeutic dose; +++ = Frequently causes side effects at therapeutic dose. Data too limited to rate with confidence. Table adapted from Landon (9) with permission of Current Medicine, Inc.

<sup>b</sup>Also causes agranulocytosis, seizures, and myocarditis.

<sup>c</sup>Possible exception of alopecia.

<sup>d</sup>Also carries warning about potential development of cataracts.

<sup>e</sup>Also causes nausea and headache.



## Hierarchy of Treatment Goals in Medical Psychotherapy of Schizophrenia

- **Acute Phase**
  - Medical/neuropsychiatric assessment
  - Rapid symptom reduction
  - Reduce impact of episode on friends, family, housing, activities
- **Convalescent Phase**
  - Gain trust/alliance with family/caregivers
  - Assess and mobilize social supports
  - Ensure human service needs are met (food, clothing, housing)
  - Ensure safety and predictability of environment
- **Adaptive Plateau**
  - Establish therapeutic alliance/supportive treatment routine
  - Achieve effective maintenance medication regime
- **Stable plateau**
  - Psychoeducation: Promote illness self-management strategies, awareness of relationship between stress and symptoms
  - Rehabilitation: Teach adaptive competencies