

# **High Potency Antipsychotic Drugs**

High potency antipsychotics are an antiquated class of medications used to treat schizophrenia, mania and agitation. Other, less common, uses for these drugs include delirium, anxiety and Tourette's syndrome. These drugs work by blocking D2 receptors, which by various pathways, lead to increased cAMP. Examples of high potency antipsychotic medications are fluphenazine, trifluoperazine and haloperidol. They have a large side effect profile and can lead to extrapyramidal symptoms and neuroleptic malignant syndrome. Extrapyramidal symptoms observed with administration of these drugs can evolve over time. Short term symptoms, which evolve over hours to days are exemplified by dystonia and torticollis. Over longer periods of administration (weeks to months), patients can develop Parkinsonian symptoms and can display various forms of tardive dyskinesia. A looming risk with the administration of antipsychotic medications is development of neuroleptic malignant syndrome.



PLAY PICMONIC

## **High Potency Drugs**

#### **Fluphenazine**

## Fluffy-nectarine

Fluphenazine is a high potency antipsychotic medication used to treat psychosis and schizophrenia. It has a long half life of 15-30 hours.

#### **Trifluoperazine**

#### Truffle-purse

Trifluoperazine is a high potency antipsychotic medication used in the treatment of schizophrenia and anxiety.

#### Haloperidol

## Halo-poodle

Haloperidol is a medication used to treat schizophrenia, acute psychosis and delirium. This drug has many serious side effects and is very potent. It is a derivative of butyrophenone, which were the original antipsychotics, developed in the 1950s.

#### **Side Effects**

## **Extrapyramidal Symptoms**

#### X-Pyramid

Extrapyramidal symptoms are movement disorders related to administration of medications with anti-dopaminergic activity, including antipsychotics (especially high potency ones), as well as other medications, for example metoclopramide (an antiemetic). The extrapyramidal side effects of dystonia, torticollis, akathisia, and Parkinsonism are seen more often in high potency antipsychotics.

#### **Short Term**

#### Short-term X-Pyramid with Clock and Date

Short term symptoms such as dystonia and torticollis can occur within hours to days after treatment.

## Dystonia

#### Dice-stone

Dystonia is described as sustained muscle contraction, which can present as repetitive twitching and abnormal posture. This is an acute extrapyramidal symptom.



#### **Torticollis**

#### Tortoise-collar

Patients with torticollis display an asymmetric neck position and have a fixed tilt of the head. Torticollis may be present in patients suffering from an acute extrapyramidal reaction after short term treatment with high potency antipsychotics.

## Long Term

## Tall X-pyramid with Calendar

Long term treatment with high potency antipsychotics can lead to parkinsonism and tardive dyskinesia.

## Tardive Dyskinesia

## Tar-dive Disc-kite

Tardive dyskinesia is described as repetitive, involuntary movements typically of the mouth or face but potentially of the trunk or extremities as well. Patients often have characteristic lip-smacking or hand movements. These symptoms typically occur months into high potency antipsychotic treatment.

#### Parkinson's-like Symptoms

## Park-in-sun garage

Parkinson's-like symptoms occur after weeks of treatment with high potency antipsychotics. Patients with this side effect display muscle stiffness, pill-rolling tremor and decreased movement.