

RESTORIL- temazepam capsule
SpecGx LLC

Restoril™
(temazepam)
Capsules USP

CIV

Rx only

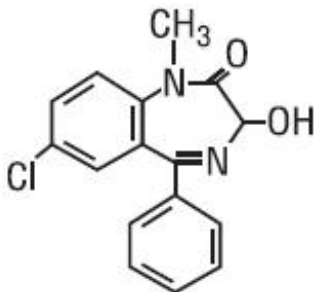
WARNING: RISKS FROM CONCOMITANT USE WITH OPIOIDS

Concomitant use of benzodiazepines and opioids may result in profound sedation, respiratory depression, coma, and death (see **WARNINGS and Drug Interactions**).

- Reserve concomitant prescribing of these drugs for use in patients for whom alternative treatment options are inadequate.
- Limit dosages and durations to the minimum required.
- Follow patients for signs and symptoms of respiratory depression and sedation.

DESCRIPTION

Restoril™ (temazepam) is a benzodiazepine hypnotic agent. The chemical name is 7-chloro-1,3-dihydro-3-hydroxy-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one, and the structural formula is:



$C_{16}H_{13}ClN_2O_2$

MW = 300.74

Temazepam is a white, crystalline substance, very slightly soluble in water and sparingly soluble in alcohol USP.

Restoril™ (temazepam) Capsules USP, 7.5 mg, 15 mg, 22.5 mg, and 30 mg, are for oral administration.

7.5 mg, 15 mg, 22.5 mg, and 30 mg Capsules

Active Ingredient: temazepam USP

7.5 mg Capsules

Inactive Ingredients: FD&C Blue #1, FD&C Red #3, gelatin, lactose, magnesium stearate, red iron oxide, titanium dioxide.

May also include: n-butyl alcohol, iron oxide red, shellac, shellac glaze, SD-35A alcohol.

15 mg Capsules

Inactive Ingredients: FD&C Blue #1, FD&C Red #3, gelatin, lactose, magnesium stearate, red iron oxide, titanium dioxide.

May also include: n-butyl alcohol, FD&C Blue #1/Brilliant Blue FCF Aluminum Lake, iron oxide red, isopropyl alcohol, propylene glycol, shellac, shellac glaze, SD-35A alcohol, SD-45 alcohol.

22.5 mg Capsules

Inactive Ingredients: FD&C Blue #1, FD&C Red #3, gelatin, lactose, magnesium stearate, red iron oxide, titanium dioxide.

May also include: n-butyl alcohol, FD&C Blue #1/Brilliant Blue FCF Aluminum Lake, iron oxide red, isopropyl alcohol, propylene glycol, shellac, shellac glaze, SD-35A alcohol, SD-45 alcohol.

30 mg Capsules

Inactive Ingredients: FD&C Blue #1, FD&C Red #3, gelatin, lactose, magnesium stearate, red iron oxide, titanium dioxide.

May also include: n-butyl alcohol, FD&C Blue #1/Brilliant Blue FCF Aluminum Lake, iron oxide red, isopropyl alcohol, propylene glycol, shellac, shellac glaze, SD-35A alcohol, SD-45 alcohol.

CLINICAL PHARMACOLOGY

Pharmacokinetics

In a single and multiple dose absorption, distribution, metabolism, and excretion (ADME) study, using ³H labeled drug, Restoril was well absorbed and found to have minimal (8%) first pass metabolism. There were no active metabolites formed and the only significant metabolite present in blood was the O-conjugate. The unchanged drug was 96% bound to plasma proteins. The blood level decline of the parent drug was biphasic with the short half-life ranging from 0.4 to 0.6 hours and the terminal half-life from 3.5 to 18.4 hours (mean 8.8 hours), depending on the study population and method of determination. Metabolites were formed with a half-life of 10 hours and excreted with a half-life of approximately 2 hours. Thus, formation of the major metabolite is the rate limiting step in the biodisposition of temazepam. There is no accumulation of metabolites. A dose-proportional relationship has been established for the area under the plasma concentration/time curve over the 15 to 30 mg dose range.

Temazepam was completely metabolized through conjugation prior to excretion; 80% to 90% of the dose appeared in the urine. The major metabolite was the O-conjugate of temazepam (90%); the O-conjugate of N-desmethyl temazepam was a minor metabolite (7%).

Bioavailability, Induction, and Plasma Levels

Following ingestion of a 30 mg Restoril capsule, measurable plasma concentrations were achieved 10 to 20 minutes after dosing with peak plasma levels ranging from 666 to 982 ng/mL (mean 865 ng/mL) occurring approximately 1.2 to 1.6 hours (mean 1.5 hours) after dosing.

In a 7 day study, in which subjects were given a 30 mg Restoril capsule 1 hour before retiring, steady-state (as measured by the attainment of maximal trough concentrations) was achieved by the third dose. Mean plasma levels of temazepam (for days 2 to 7) were 260±210 ng/mL at 9 hours and 75±80 ng/mL at 24 hours after dosing. A slight trend toward declining 24 hour plasma levels was seen after day 4 in the study, however, the 24 hour plasma levels were quite variable.

At a dose of 30 mg once-a-day for 8 weeks, no evidence of enzyme induction was found in man.

Elimination Rate of Benzodiazepine Hypnotics and Profile of Common Untoward Effects

The type and duration of hypnotic effects and the profile of unwanted effects during administration of benzodiazepine hypnotics may be influenced by the biologic half-life of the administered drug and for

some hypnotics, the half-life of any active metabolites formed. Benzodiazepine hypnotics have a spectrum of half-lives from short (<4 hours) to long (>20 hours). When half-lives are long, drug (and for some drugs their active metabolites) may accumulate during periods of nightly administration and be associated with impairments of cognitive and/or motor performance during waking hours; the possibility of interaction with other psychoactive drugs or alcohol will be enhanced. In contrast, if half-lives are shorter, drug (and, where appropriate, its active metabolites) will be cleared before the next dose is ingested, and carry-over effects related to excessive sedation or CNS depression should be minimal or absent. However, during nightly use for an extended period, pharmacodynamic tolerance or adaptation to some effects of benzodiazepine hypnotics may develop. If the drug has a short elimination half-life, it is possible that a relative deficiency of the drug, or, if appropriate, its active metabolites (i.e., in relationship to the receptor site) may occur at some point in the interval between each night's use. This sequence of events may account for 2 clinical findings reported to occur after several weeks of nightly use of rapidly eliminated benzodiazepine hypnotics, namely, increased wakefulness during the last third of the night, and the appearance of increased signs of daytime anxiety.

Controlled Trials Supporting Efficacy

Restoril improved sleep parameters in clinical studies. Residual medication effects ("hangover") were essentially absent. Early morning awakening, a particular problem in the geriatric patient, was significantly reduced.

Patients with chronic insomnia were evaluated in 2 week, placebo controlled sleep laboratory studies with Restoril at doses of 7.5 mg, 15 mg, and 30 mg, given 30 minutes prior to bedtime. There was a linear dose-response improvement in total sleep time and sleep latency, with significant drug-placebo differences at 2 weeks occurring only for total sleep time at the 2 higher doses, and for sleep latency only at the highest dose.

In these sleep laboratory studies, REM sleep was essentially unchanged and slow wave sleep was decreased. No measurable effects on daytime alertness or performance occurred following Restoril treatment or during the withdrawal period, even though a transient sleep disturbance in some sleep parameters was observed following withdrawal of the higher doses. There was no evidence of tolerance development in the sleep laboratory parameters when patients were given Restoril nightly for at least 2 weeks.

In addition, normal subjects with transient insomnia associated with first night adaptation to the sleep laboratory were evaluated in 24 hour, placebo controlled sleep laboratory studies with Restoril at doses of 7.5 mg, 15 mg, and 30 mg, given 30 minutes prior to bedtime. There was a linear dose-response improvement in total sleep time, sleep latency and number of awakenings, with significant drug-placebo differences occurring for sleep latency at all doses, for total sleep time at the 2 higher doses and for number of awakenings only at the 30 mg dose.

INDICATIONS AND USAGE

Restoril™ (temazepam) is indicated for the short-term treatment of insomnia (generally 7 to 10 days).

For patients with short-term insomnia, instructions in the prescription should indicate that Restoril™ (temazepam) should be used for short periods of time (7 to 10 days).

The clinical trials performed in support of efficacy were 2 weeks in duration with the final formal assessment of sleep latency performed at the end of treatment.

CONTRAINDICATIONS

Benzodiazepines may cause fetal harm when administered to a pregnant woman. An increased risk of congenital malformations associated with the use of diazepam and chlordiazepoxide during the first trimester of pregnancy has been suggested in several studies. Transplacental distribution has resulted in

neonatal CNS depression following the ingestion of therapeutic doses of a benzodiazepine hypnotic during the last weeks of pregnancy.

Reproduction studies in animals with temazepam were performed in rats and rabbits. In a perinatal-postnatal study in rats, oral doses of 60 mg/kg/day resulted in increasing nursing mortality. Teratology studies in rats demonstrated increased fetal resorptions at doses of 30 and 120 mg/kg in one study and increased occurrence of rudimentary ribs, which are considered skeletal variants, in a second study at doses of 240 mg/kg or higher. In rabbits, occasional abnormalities such as exencephaly and fusion or asymmetry of ribs were reported without dose relationship. Although these abnormalities were not found in the concurrent control group, they have been reported to occur randomly in historical controls. At doses of 40 mg/kg or higher, there was an increased incidence of the 13th rib variant when compared to the incidence in concurrent and historical controls.

Restoril is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Patients should be instructed to discontinue the drug prior to becoming pregnant. The possibility that a woman of childbearing potential may be pregnant at the time of institution of therapy should be considered.

WARNINGS

Concomitant use of benzodiazepines, including Restoril, and opioids may result in profound sedation, respiratory depression, coma, and death. Because of these risks, reserve concomitant prescribing of these drugs for use in patients for whom alternative treatment options are inadequate.

Observational studies have demonstrated that concomitant use of opioid analgesics and benzodiazepines increases the risk of drug-related mortality compared to use of opioids alone. If a decision is made to prescribe Restoril concomitantly with opioids, prescribe the lowest effective dosages and minimum durations of concomitant use, and follow patients closely for signs and symptoms of respiratory depression and sedation. In patients already receiving an opioid analgesic, prescribe a lower initial dose of Restoril than indicated in the absence of an opioid and titrate based on clinical response. If an opioid is initiated in a patient already taking Restoril, prescribe a lower initial dose of the opioid and titrate based upon clinical response.

Advise both patients and caregivers about the risks of respiratory depression and sedation when Restoril is used with opioids. Advise patients not to drive or operate heavy machinery until the effects of concomitant use with the opioid have been determined (*see Drug Interactions*).

Sleep disturbance may be the presenting manifestation of an underlying physical and/or psychiatric disorder. Consequently, a decision to initiate symptomatic treatment of insomnia should only be made after the patient has been carefully evaluated. **The failure of insomnia to remit after 7 to 10 days of treatment may indicate the presence of a primary psychiatric and/or medical illness that should be evaluated.** Worsening of insomnia may be the consequence of an unrecognized psychiatric or physical disorder as may the emergence of new abnormalities of thinking or behavior. Such abnormalities have also been reported to occur in association with the use of drugs with central nervous system depressant activity, including those of the benzodiazepine class. Because some of the worrisome adverse effects of benzodiazepines, including Restoril, appear to be dose related (*see PRECAUTIONS and DOSAGE AND ADMINISTRATION*), it is important to use the lowest possible effective dose. Elderly patients are especially at risk.

Some of these changes may be characterized by decreased inhibition, e.g., aggressiveness and extroversion that seem out of character, similar to that seen with alcohol. Other kinds of behavioral changes can also occur, for example, bizarre behavior, agitation, hallucinations, and depersonalization. Complex behaviors such as “sleep-driving” (i.e., driving while not fully awake after ingestion of a sedative-hypnotic, with amnesia for the event) have been reported. These events can occur in sedative-hypnotic-naïve as well as in sedative-hypnotic-experienced persons. Although behaviors such as

“sleep-driving” may occur with Restoril alone at therapeutic doses, the use of alcohol and other CNS depressants with Restoril appears to increase the risk of such behaviors, as does the use of Restoril at doses exceeding the maximum recommended dose. Due to the risk to the patient and the community, discontinuation of Restoril should be strongly considered for patients who report a “sleep-driving” episode. Other complex behaviors (e.g., preparing and eating food, making phone calls, or having sex) have been reported in patients who are not fully awake after taking a sedative-hypnotic. As with “sleep-driving”, patients usually do not remember these events. Amnesia and other neuro-psychiatric symptoms may occur unpredictably. In primarily depressed patients, worsening of depression, including suicidal thinking has been reported in association with the use of sedative/hypnotics.

It can rarely be determined with certainty whether a particular instance of the abnormal behaviors listed above is drug induced, spontaneous in origin, or a result of an underlying psychiatric or physical disorder. Nonetheless, the emergence of any new behavioral sign or symptom of concern requires careful and immediate evaluation.

Withdrawal symptoms (of the barbiturate type) have occurred after the abrupt discontinuation of benzodiazepines (*see* **DRUG ABUSE AND DEPENDENCE**).

Because Restoril can cause drowsiness and a decreased level of consciousness, patients, particularly the elderly, are at higher risk of falls.

Severe Anaphylactic and Anaphylactoid Reactions

Rare cases of angioedema involving the tongue, glottis or larynx have been reported in patients after taking the first or subsequent doses of sedative-hypnotics, including Restoril. Some patients have had additional symptoms such as dyspnea, throat closing, or nausea and vomiting that suggest anaphylaxis. Some patients have required medical therapy in the emergency department. If angioedema involves the tongue, glottis or larynx, airway obstruction may occur and be fatal. Patients who develop angioedema after treatment with Restoril should not be rechallenged with the drug.

PRECAUTIONS

General

Since the risk of the development of oversedation, dizziness, confusion, and/or ataxia increases substantially with larger doses of benzodiazepines in elderly and debilitated patients, 7.5 mg of Restoril is recommended as the initial dosage for such patients.

Restoril should be administered with caution in severely depressed patients or those in whom there is any evidence of latent depression; it should be recognized that suicidal tendencies may be present and protective measures may be necessary.

The usual precautions should be observed in patients with impaired renal or hepatic function and in patients with chronic pulmonary insufficiency.

If Restoril is to be combined with other drugs having known hypnotic properties or CNS-depressant effects, consideration should be given to potential additive effects.

The possibility of a synergistic effect exists with the co-administration of Restoril and diphenhydramine. One case of stillbirth at term has been reported 8 hours after a pregnant patient received Restoril and diphenhydramine. A cause and effect relationship has not yet been determined (*see* **CONTRAINDICATIONS**).

Information for Patients

The text of a patient Medication Guide is printed at the end of this insert. To assure safe and effective use of Restoril, the information and instructions provided in this patient Medication Guide should be discussed with patients.

Special Concerns

“Sleep-Driving” and Other Complex Behaviors – There have been reports of people getting out of bed after taking a sedative-hypnotic and driving their cars while not fully awake, often with no memory of the event. If a patient experiences such an episode, it should be reported to his or her doctor immediately, since “sleep-driving” can be dangerous. This behavior is more likely to occur when Restoril is taken with alcohol or other central nervous system depressants (see **WARNINGS**). Other complex behaviors (e.g., preparing and eating food, making phone calls, or having sex) have been reported in patients who are not fully awake after taking a sedative-hypnotic. As with “sleep-driving”, patients usually do not remember these events.

Advise patients that increased drowsiness and decreased consciousness may increase the risk of falls in some patients.

Laboratory Tests

The usual precautions should be observed in patients with impaired renal or hepatic function and in patients with chronic pulmonary insufficiency. Abnormal liver function tests as well as blood dyscrasias have been reported with benzodiazepines.

Drug Interactions

The concomitant use of benzodiazepines and opioids increases the risk of respiratory depression because of actions at different receptor sites in the CNS that control respiration. Benzodiazepines interact at GABAA sites and opioids interact primarily at mu receptors. When benzodiazepines and opioids are combined, the potential for benzodiazepines to significantly worsen opioid-related respiratory depression exists. Limit dosage and duration of concomitant use of benzodiazepines and opioids, and monitor patients closely for respiratory depression and sedation.

The pharmacokinetic profile of temazepam does not appear to be altered by orally administered cimetidine dosed according to labeling.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenicity studies were conducted in rats at dietary temazepam doses up to 160 mg/kg/day for 24 months and in mice at dietary doses of 160 mg/kg/day for 18 months. No evidence of carcinogenicity was observed although hyperplastic liver nodules were observed in female mice exposed to the highest dose. The clinical significance of this finding is not known.

Fertility in male and female rats was not adversely affected by Restoril.

No mutagenicity tests have been done with temazepam.

Pregnancy

Pregnancy Category X (see **CONTRAINDICATIONS**).

Nursing Mothers

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Restoril is administered to a nursing woman.

Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

Geriatric Use

Clinical studies of Restoril did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in response between the elderly and younger patients. In general, dose

selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy commonly observed in this population. Restoril 7.5 mg is recommended as the initial dosage for patients aged 65 and over since the risk of the development of oversedation, dizziness, confusion, ataxia and/or falls increases substantially with larger doses of benzodiazepines in elderly and debilitated patients.

ADVERSE REACTIONS

During controlled clinical studies in which 1076 patients received Restoril at bedtime, the drug was well tolerated. Side effects were usually mild and transient. Adverse reactions occurring in 1% or more of patients are presented in the following table:

	Restoril % Incidence (n=1076)	Placebo % Incidence (n=783)
Drowsiness	9.1	5.6
Headache	8.5	9.1
Fatigue	4.8	4.7
Nervousness	4.6	8.2
Lethargy	4.5	3.4
Dizziness	4.5	3.3
Nausea	3.1	3.8
Hangover	2.5	1.1
Anxiety	2.0	1.5
Depression	1.7	1.8
Dry Mouth	1.7	2.2
Diarrhea	1.7	1.1
Abdominal Discomfort	1.5	1.9
Euphoria	1.5	0.4
Weakness	1.4	0.9
Confusion	1.3	0.5
Blurred Vision	1.3	1.3
Nightmares	1.2	1.7
Vertigo	1.2	0.8

The following adverse events have been reported less frequently (0.5% to 0.9%):

Central Nervous System – anorexia, ataxia, equilibrium loss, tremor, increased dreaming

Cardiovascular – dyspnea, palpitations

Gastrointestinal – vomiting

Musculoskeletal – backache

Special Senses – hyperhidrosis, burning eyes

Amnesia, hallucinations, horizontal nystagmus, and paradoxical reactions including restlessness, overstimulation and agitation were rare (less than 0.5%).

DRUG ABUSE AND DEPENDENCE

Abuse and addiction are separate and distinct from physical dependence and tolerance. Abuse is

characterized by misuse of the drug for non-medical purposes, often in combination with other psychoactive substances. Physical dependence is a state of adaptation that is manifested by a specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug and/or administration of an antagonist. Tolerance is a state of adaptation in which exposure to a drug induces changes that result in a diminution of one or more of the drug's effects over time. Tolerance may occur to both the desired and undesired effects of drugs and may develop at different rates for different effects.

Addiction is a primary, chronic, neurobiological disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving. Drug addiction is a treatable disease, utilizing a multidisciplinary approach, but relapse is common.

Controlled Substance

Restoril is a controlled substance in Schedule IV.

Abuse and Dependence

Withdrawal symptoms, similar in character to those noted with barbiturates and alcohol (convulsions, tremor, abdominal, and muscle cramps, vomiting, and sweating), have occurred following abrupt discontinuance of benzodiazepines. The more severe withdrawal symptoms have usually been limited to those patients who received excessive doses over an extended period of time. Generally milder withdrawal symptoms (e.g., dysphoria and insomnia) have been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months. Consequently, after extended therapy at doses higher than 15 mg, abrupt discontinuation should generally be avoided and a gradual dosage tapering schedule followed. As with any hypnotic, caution must be exercised in administering Restoril to individuals known to be addiction-prone or to those whose history suggests they may increase the dosage on their own initiative. It is desirable to limit repeated prescriptions without adequate medical supervision.

OVERDOSAGE

Manifestations of acute overdosage of Restoril can be expected to reflect the CNS effects of the drug and include somnolence, confusion, and coma, with reduced or absent reflexes, respiratory depression, and hypotension. The oral LD₅₀ of Restoril was 1963 mg/kg in mice, 1833 mg/kg in rats, and >2400 mg/kg in rabbits.

Treatment

If the patient is conscious, vomiting should be induced mechanically or with emetics. Gastric lavage should be employed utilizing concurrently a cuffed endotracheal tube if the patient is unconscious to prevent aspiration and pulmonary complications. Maintenance of adequate pulmonary ventilation is essential. The use of pressor agents intravenously may be necessary to combat hypotension. Fluids should be administered intravenously to encourage diuresis. The value of dialysis has not been determined. If excitation occurs, barbiturates should not be used. It should be borne in mind that multiple agents may have been ingested. Flumazenil (Romazicon®)*, a specific benzodiazepine receptor antagonist, is indicated for the complete or partial reversal of the sedative effects of benzodiazepines and may be used in situations when an overdose with a benzodiazepine is known or suspected. Prior to the administration of flumazenil, necessary measures should be instituted to secure airway, ventilation, and intravenous access. Flumazenil is intended as an adjunct to, not as a substitute for, proper management of benzodiazepine overdose. Patients treated with flumazenil should be monitored for re-sedation, respiratory depression, and other residual benzodiazepine effects for an appropriate period after treatment. **The prescriber should be aware of a risk of seizure in association with flumazenil treatment, particularly in long-term benzodiazepine users and in cyclic antidepressant overdose.**

The complete flumazenil package insert including CONTRAINDICATIONS, WARNINGS, and PRECAUTIONS should be consulted prior to use.

Up-to-date information about the treatment of overdose can often be obtained from a certified Regional Poison Control Center. Telephone numbers of certified Regional Poison Control Centers are listed in the Physicians' Desk Reference^{®**}.


DOSAGE AND ADMINISTRATION

While the recommended usual adult dose is 15 mg before retiring, 7.5 mg may be sufficient for some patients, and others may need 30 mg. In transient insomnia, a 7.5 mg dose may be sufficient to improve sleep latency. In elderly or debilitated patients, it is recommended that therapy be initiated with 7.5 mg until individual responses are determined.

HOW SUPPLIED

Restoril[™] (temazepam) Capsules USP

7.5 mg

Blue and pink capsules, with the pink body imprinted "FOR SLEEP" on one side and  on the other side in red, and a blue cap imprinted "RESTORIL 7.5 mg" twice in red.

Bottle of 30NDC 0406-9915-03


Bottle of 100NDC 0406-9915-01

15 mg

Maroon and pink capsules, with the pink body imprinted "FOR SLEEP" on one side and  on the other side in red, and a maroon cap imprinted "RESTORIL 15 mg" twice in white.

Bottle of 100NDC 0406-9916-01

22.5 mg

Opaque blue capsules, with the opaque blue body imprinted "FOR SLEEP" on one side and  on the other side in red, and an opaque blue cap imprinted "RESTORIL 22.5 mg" twice in red.

Bottle of 30NDC 0406-9914-03

30 mg

Maroon and blue capsules, with the blue body imprinted "FOR SLEEP" on one side and  on the other side in red, and a maroon cap imprinted "RESTORIL 30 mg" twice in white.


Bottle of 100NDC 0406-9917-01

Dispense in a well-closed, light-resistant container with a child-resistant closure.

Storage: Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].

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Pharmaceuticals

An electronic copy of this medication guide can be obtained from www.mallinckrodt.com/Medguide/L20R02.pdf or by calling 1-800-778-7898 for alternate delivery options.

MEDICATION GUIDE

RESTORIL™ (res-tl-ril)

(temazepam) Capsules, C-IV

What is the most important information I should know about RESTORIL?

- **RESTORIL is a benzodiazepine medicine. Taking benzodiazepines with opioid medicines, alcohol, or other central nervous system depressants (including street drugs) can cause severe drowsiness, breathing problems (respiratory depression), coma and death.**
- After taking RESTORIL, you may get up out of bed while not being fully awake and do an activity that you do not know you are doing. The next morning, you may not remember that you did anything during the night. You have a higher chance for doing these activities if you drink alcohol or take other medicines that make you sleepy with RESTORIL. Reported activities include:
 - driving a car (“sleep-driving”)
 - making and eating food
 - talking on the phone
 - having sex
 - sleep-walking

Call your healthcare provider right away if you find out that you have done any of the above activities after taking RESTORIL.

- Do not take RESTORIL unless you are able to stay in bed a full night (7 to 8 hours) before you must be active again.
- Do not take more RESTORIL than prescribed.

What is RESTORIL?

- RESTORIL is a prescription sleep medicine. RESTORIL is used in adults for the short-term (usually 7 to 10 days) treatment of a sleep problem called insomnia. Symptoms of insomnia include trouble falling asleep and waking up often during the night.
- **RESTORIL is a federal controlled substance (C-IV) because it can be abused or lead to dependence.** Keep RESTORIL in a safe place to prevent misuse and abuse. Selling or giving away RESTORIL may harm others, and is against the law. Tell your healthcare provider if you have ever abused or been dependent on alcohol, prescription medicines or street drugs.
- It is not known if RESTORIL is safe and effective in children.
- It is not known if RESTORIL is safe and effective for use longer than 2 weeks.

Do not take RESTORIL if you:

- are allergic to temazepam or any of the ingredients in RESTORIL. See the end of this Medication Guide for a complete list of ingredients in RESTORIL.

Before you take RESTORIL, tell your healthcare provider about all of your medical conditions, including if you:

- have a history of depression, mental illness or, suicidal thoughts
- have a history of drug or alcohol abuse or addiction

- have lung disease or breathing problems
- are pregnant or plan to become pregnant. RESTORIL may cause birth defects or harm your unborn baby.
- are breastfeeding, or plan to breastfeed. RESTORIL may pass through your breast milk and may harm your baby. Talk to your healthcare provider about the best way to feed your baby if you take RESTORIL.

Tell your healthcare provider about all of the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Taking RESTORIL with certain other medicines can cause side effects or affect how well RESTORIL or the other medicines work. Do not start or stop other medicines without talking to your healthcare provider.

Do not take RESTORIL with other medicines that can make you sleepy unless your healthcare provider tells you to.

How should I take RESTORIL?

- **See “What is the most important information I should know about RESTORIL?”**
- Take RESTORIL exactly as your healthcare providers tell you to take it. Take RESTORIL right before you get into bed.
- Do not take RESTORIL unless you are able to get a full night’s sleep before you must be active again.
- If you take too much RESTORIL or overdose, get emergency treatment right away.

What should I avoid while taking RESTORIL?

- Do not drive, operate machinery, do other dangerous activities or do anything that needs you to be alert until you know how RESTORIL affects you.
- You should not drink alcohol while you are taking RESTORIL.

What are the possible side effects of RESTORIL?

RESTORIL may cause serious side effects, including:

- **See “What is the most important information I should know about RESTORIL?”**
- **Withdrawal symptoms.** You may have withdrawal symptoms if you stop taking RESTORIL suddenly. Withdrawal symptoms can be serious and include seizures, shakiness, stomach and muscle cramps, vomiting and sweating. Mild withdrawal symptoms include a depressed mood and trouble sleeping. Talk to your healthcare provider about slowly stopping RESTORIL to avoid withdrawal symptoms.
- **Abnormal thoughts and behavior.** Symptoms include more outgoing or aggressive behavior than normal, confusion, agitation, hallucinations, worsening of depression, and suicidal thoughts.
- **Abuse and dependence.** Taking RESTORIL can cause physical and psychological dependence. Physical and psychological dependence is not the same as drug addiction. Your healthcare provider can tell you more about the differences between physical and psychological dependence and drug addiction.
- **Severe allergic reactions.** Symptoms include swelling of the tongue or throat, trouble breathing, and nausea and vomiting. Get emergency medical help right away if you have these symptoms after taking RESTORIL.

The most common side effects of RESTORIL include:

- drowsiness • headache
- tiredness • nervousness
- dizziness • nausea

You may still feel drowsy the next day after taking RESTORIL. **Do not drive or do other dangerous activities after taking RESTORIL until you feel fully awake.**

These are not all the possible side effects of RESTORIL. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store RESTORIL?

- Store RESTORIL between 68°F to 77°F (20°C to 25°C).
- **Keep RESTORIL and all medicines out of the reach of children.**

General information about the safe and effective use of RESTORIL.

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use RESTORIL for a condition for which it was not prescribed. Do not give RESTORIL to other people, even if they have the same symptoms that you have. It may harm them. You can ask your healthcare provider or pharmacist for information about RESTORIL that is written for healthcare professionals.

What are the ingredients in RESTORIL?

Active Ingredient: temazepam

Inactive Ingredients: gelatin, lactose, magnesium stearate, red iron oxide, titanium dioxide

Manufactured by SpecGx LLC

Webster Groves, MO 63119

If you would like more information, call Mallinckrodt Inc. at 1-800-778-7898 or visit www.mallinckrodt.com.

This Medication Guide has been approved by the U.S. Food and Drug Administration

Revised: September 2017

L20R02

PACKAGE LABEL - PRINCIPAL DISPLAY PANEL - 7.5 mg Bottle

NDC 0406-9915-01

100 Capsules

Restoril™

(temazepam) Capsules USP

CIV

7.5 mg

Rx only

Each capsule contains: Temazepam USP.....7.5 mg

PHARMACIST: Dispense the Medication Guide provided separately to each patient.

Mallinckrodt™

L00R01

Rev 09/2017

NDC 0406-9915-01 **100 Capsules**

Restoril™ **CIV**
(temazepam) Capsules USP

7.5 mg **Rx only**

Each capsule contains: Temazepam USP . . . 7.5 mg

PHARMACIST: Dispense the Medication Guide provided separately to each patient.

Mallinckrodt™ 

USUAL ADULT DOSAGE: See package insert.

STORAGE: Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].

Dispense in a well-closed, light-resistant container with a child-resistant closure.

Do not accept if seal over bottle opening is broken or missing.

SpecGx LLC
Webster Groves, MO 63119 USA

L00R01 Rev 09/2017

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GTIN: 00304069915016
04069915016
915016
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PACKAGE LABEL - PRINCIPAL DISPLAY PANEL - 15 mg Bottle

NDC 0406-9916-01

100 Capsules

Restoril™
(temazepam) Capsules USP

CIV

15 mg

Rx only

Each capsule contains: Temazepam USP.....15 mg

PHARMACIST: Dispense the Medication Guide provided separately to each patient.

Mallinckrodt™

L00R07
Rev 09/2017

NDC 0406-9916-01 **100 Capsules**

Restoril™ **CIV**
(temazepam) Capsules USP

15 mg **Rx only**

Each capsule contains: Temazepam USP . . . 15 mg

PHARMACIST: Dispense the Medication Guide provided separately to each patient.

Mallinckrodt™ 

USUAL ADULT DOSAGE: One or two capsules before retiring.

STORAGE: Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].

Dispense in a well-closed, light-resistant container with a child-resistant closure.

Do not accept if seal over bottle opening is broken or missing.

SpecGx LLC
Webster Groves, MO 63119 USA

L00R07 Rev 09/2017

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GTIN: 00304069916013
04069916013
916013
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PACKAGE LABEL - PRINCIPAL DISPLAY PANEL - 22.5 mg Bottle

NDC 0406-9914-03

30 Capsules

**Restoril™
(temazepam) Capsules USP**

CIV

22.5 mg

Rx only

Each capsule contains: Temazepam USP.....22.5 mg

PHARMACIST: Dispense the Medication Guide provided separately to each patient.

Mallinckrodt™

L00R03
Rev 09/2017



PACKAGE LABEL - PRINCIPAL DISPLAY PANEL - 30 mg Bottle

NDC 0406-9917-01

100 Capsules

**Restoril™
(temazepam) Capsules USP**

CIV

30 mg

Rx only

Each capsule contains: Temazepam USP.....30 mg

PHARMACIST: Dispense the Medication Guide provided separately to each patient.

Mallinckrodt™

L00R02
Rev 09/2017

RESTORIL

temazepam capsule

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0406-9915
Route of Administration	ORAL	DEA Schedule	CIV

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
TEMAZEPAM (UNII: CHB1QD2QSS) (TEMAZEPAM - UNII:CHB1QD2QSS)	TEMAZEPAM	7.5 mg

Inactive Ingredients

Ingredient Name	Strength
ALCOHOL (UNII: 3K9958V90M)	
BUTYL ALCOHOL (UNII: 8PJ61P6TS3)	
ETHYL ACETATE (UNII: 7684508NMZ)	
FERRIC OXIDE RED (UNII: 1K09F3G675)	
FD&C BLUE NO. 1 (UNII: HBR47K3TBD)	
FD&C RED NO. 3 (UNII: PN2ZH5LOQY)	
GELATIN, UNSPECIFIED (UNII: 2G86QN327L)	
LACTOSE, UNSPECIFIED FORM (UNII: J2B2A4N98G)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
SHELLAC (UNII: 46N107B71O)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	

Product Characteristics

Color	PINK, BLUE	Score	no score
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Shape	CAPSULE	Size	16mm
Flavor		Imprint Code	FOR;SLEEP;M;RESTORIL;7;5;mg
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0406-9915-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	02/27/1981	
2	NDC:0406-9915-03	30 in 1 BOTTLE; Type 0: Not a Combination Product	02/27/1981	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA018163	02/27/1981	

RESTORIL

temazepam capsule

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0406-9916
Route of Administration	ORAL	DEA Schedule	CIV

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
TEMAZEPAM (UNII: CHB1QD2QSS) (TEMAZEPAM - UNII:CHB1QD2QSS)	TEMAZEPAM	15 mg

Inactive Ingredients

Ingredient Name	Strength
ALCOHOL (UNII: 3K9958V90M)	
ALUMINUM OXIDE (UNII: LM26O6933)	
BUTYL ALCOHOL (UNII: 8PJ61P6TS3)	
ETHYL ACETATE (UNII: 7684508NMZ)	
FERRIC OXIDE RED (UNII: 1K09F3G675)	
FD&C BLUE NO. 1 (UNII: HBR47K3TBD)	
FD&C RED NO. 3 (UNII: PN2ZH5LOQY)	
GELATIN, UNSPECIFIED (UNII: 2G86QN327L)	
ISOPROPYL ALCOHOL (UNII: ND2M416302)	
LACTOSE, UNSPECIFIED FORM (UNII: J2B2A4N98G)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SHELLAC (UNII: 46N107B71O)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	

Product Characteristics

Color	PINK, RED	Score	no score
Shape	CAPSULE	Size	16 mm
Flavor		Imprint Code	FOR;SLEEP;M;RESTORIL;15;mg
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0406-9916-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	02/27/1981	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA018163	02/27/1981	

RESTORIL

temazepam capsule

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0406-9914
Route of Administration	ORAL	DEA Schedule	CIV

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
TEMAZEPAM (UNII: CHB1QD2QSS) (TEMAZEPAM - UNII:CHB1QD2QSS)	TEMAZEPAM	22.5 mg

Inactive Ingredients

Ingredient Name	Strength
ALCOHOL (UNII: 3K9958V90M)	
ALUMINUM OXIDE (UNII: LM26O6933)	
BUTYL ALCOHOL (UNII: 8PJ61P6TS3)	
ETHYL ACETATE (UNII: 76845O8NMZ)	
FERRIC OXIDE RED (UNII: 1K09F3G675)	
FD&C BLUE NO. 1 (UNII: HBR47K3TBD)	
FD&C RED NO. 3 (UNII: PN2ZH5LOQY)	
GELATIN, UNSPECIFIED (UNII: 2G86QN327L)	
ISOPROPYL ALCOHOL (UNII: ND2M416302)	
LACTOSE, UNSPECIFIED FORM (UNII: J2B2A4N98G)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SHELLAC (UNII: 46N107B71O)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	

Product Characteristics

Color	BLUE	Score	no score
Shape	CAPSULE	Size	16mm
Flavor		Imprint Code	FOR;SLEEP;M;RESTORIL;22;5;mg
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0406-9914-03	30 in 1 BOTTLE; Type 0: Not a Combination Product	02/27/1981	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA018163	02/27/1981	

RESTORIL

temazepam capsule

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0406-9917
Route of Administration	ORAL	DEA Schedule	CIV

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
TEMAZEPAM (UNII: CHB1QD2QSS) (TEMAZEPAM - UNII:CHB1QD2QSS)	TEMAZEPAM	30 mg

Inactive Ingredients

Ingredient Name	Strength
ALCOHOL (UNII: 3K9958V90M)	
ALUMINUM OXIDE (UNII: LM26O6933)	
BUTYL ALCOHOL (UNII: 8PJ61P6TS3)	
ETHYL ACETATE (UNII: 76845O8NMZ)	
FERRIC OXIDE RED (UNII: 1K09F3G675)	
FD&C BLUE NO. 1 (UNII: HBR47K3TBD)	
FD&C RED NO. 3 (UNII: PN2ZH5LOQY)	
GELATIN, UNSPECIFIED (UNII: 2G86QN327L)	
ISOPROPYL ALCOHOL (UNII: ND2M416302)	
LACTOSE, UNSPECIFIED FORM (UNII: J2B2A4N98G)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SHELLAC (UNII: 46N107B71O)	

TITANIUM DIOXIDE (UNII: 15FIX9V2JP)

Product Characteristics

Color	BLUE, RED	Score	no score
Shape	CAPSULE	Size	16mm
Flavor		Imprint Code	FOR;SLEEP;M;RESTORIL;30;mg
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0406-9917-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	02/27/1981	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA018163	02/27/1981	

Labeler - SpecGx LLC (080679498)

Establishment

Name	Address	ID/FEI	Business Operations
SpecGx LLC		957414238	ANALYSIS(0406-9915, 0406-9916, 0406-9914, 0406-9917) , MANUFACTURE(0406-9915, 0406-9916, 0406-9914, 0406-9917)

Revised: 2/2020

SpecGx LLC