Ind. J. Res. Methods Pharm. Sci. 2022; 1(6):12-26
ISSN (Online): 2583-3804

REVIEW ARTICLE

MOUTH DISSOLVING TABLETS: AN OVERVIEW

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Received: 25 December 2022/ Accepted in revised form: 27 December 2022 / Published online: 28 December 2022

ABSTRACT:

A mouth dissolving tablet is a solid dosage form containing an active ingredient that dissolves within one minute in the oral cavity. Convenience of administration and improved patient compliance are important in the design of oral drug delivery systems, and oral drug delivery systems remain the preferred route of drug delivery despite various drawbacks. Such problems can be solved by prescribing "Mouth dissolving tablets" (MDT) that disintegrate or rapidly dissolve in the mouth without water within seconds due to the action of super-disintegrants, or by changing the pore structure of the oral cavity. can be solved in new drug delivery systems by maximizing pharmaceutical formulation. These dosage forms are placed in the mouth and dispersed or dissolved in saliva. There is no need for water during administration as the drug is released immediately upon contact with saliva. The purpose of this article is to review technological developments and advances in super disintegrants in the formulation, manufacturing, and evaluation of these tablets. This article also describes a new evaluation method for these orally disintegrating tablets. Various modifications in conventional evaluation and the use of specialized equipment have proven essential to testing these dosage forms. This review describes formulation techniques and different techniques.

Keywords: Mouth dissolving tablets, fast dissolving tablets, Dysphagia, Rapid disintegrating tablets.

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INTRODUCTION:

Many patients, especially older patients, find it difficult to swallow tablets, capsules, and liquids, leading to high rates of non-compliance studies and many safer and more A new drug delivery system was Developed. A fast disintegrating/dissolving tablet is one such example. From a quality-of-life perspective, most of these efforts focus on simplifying medication. Among the various dosage forms that have been developed to improve the convenience of administration, the most preferred commercial product is the mouth dissolving tablet (MDT). The oral cavity is an attractive location for drug delivery due to its ease of administration. Various dosage forms are given orally, including tablets, capsules, and liquids. Dissolving Tablet by MDT technology, which allows tablets to dissolve in the mouth without the need for additional water intake, has received a great deal of attention over the past decade. MDT is also known as fast melt, fast dispersing, fast dissolving, fast melt and/or fast disintegrating tablets. All MDTs approved by the Food and Drug Administration (FDA) are classified as tablets that disintegrate in the mouth. Recently, the European Pharmacopoeia adopted the term orodispersible tablets for tablets that disperse or dissolve in the mouth within 3 minutes before swallowing. Such tablets disintegrate into small granules or dissolve in the mouth from a hard solid to a gel-like structure, making them easier for patients to swallow. The disintegration time for good

MDTs varies from several second to about a minute. Orally disintegrating tablets offer benefits, especially for children and the elderly who have difficulty swallowing conventional tablets and capsules.

Ideal properties of mouth dissolving tablets:

An ideal MDT should:

1. Require no water for oral administration.
2. Have a pleasing mouth feel.
3. Have an acceptable taste masking property.
4. Be harder and less friable.
5. Leave minimal or no residue in mouth after administration.
6. Exhibit low sensitivity to environmental conditions (temperature and humidity).
7. Allow tablet manufacturing by conventional processing and packaging equipment.

Advantages of mouth dissolving tablets:

1. Ease of administration to patients who cannot swallow, such as the elderly, stroke victims and bedridden patients; patients who should not swallow, such as renal failure patients; and who refuse to swallow, such as paediatrics, geriatric, and psychiatric patients.
2. compliance for disabled bedridden patients and for travelling and busy people who do not have ready access to water.
3. Good mouth feel property of MDDDS helps to change the basic view of medication drugs.
4. Convenience of administration and accurate dosing as compared to liquid formulations.
5. Benefit of liquid medication in the form of solid preparation.
6. More rapid drug absorption from the pre-gastric area i.e., mouth, pharynx and oesophagus which may produce rapid onset of action.
7. Pregastric absorption can result in improved bio availability, reduced dose and improved clinical performance by reducing side effects.
8. New business opportunities: product differentiation, line extension and life-cycle management, exclusivity of product promotion and patent-life extension

Disadvantages of mouth dissolving tablets:

1. High doses cannot be incorporated.
2. Excessive bitter drugs are not feasible.
3. Dose uniformity is a technical challenge.
4. They require special packaging for the products stability and safety.
5. Drugs which irritate the oral mucosa cannot be administered by this route.

Techniques for preparing mouth dissolving tablets:

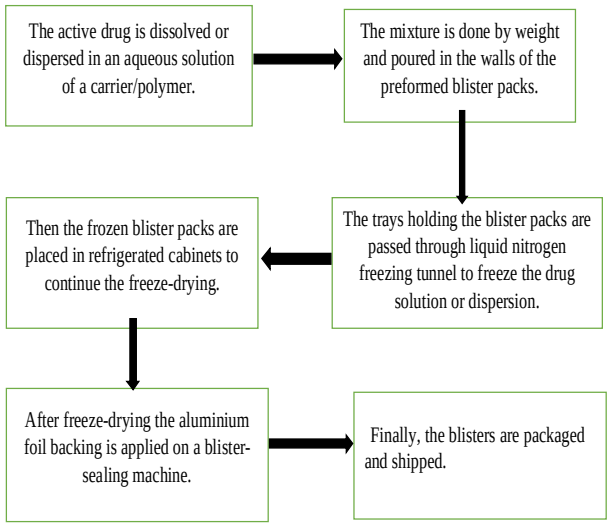
Many techniques have been reported for the formulation of mouth dissolving tablets.

1. Freeze drying / lyophilization
2. Tablet Moulding
3. Spray drying
4. Sublimation
5. Direct compression
6. Mass extrusion

1. Freeze-drying or lyophilization:

Freeze-drying is the process of sublimating water from a product after it has been frozen. This technique creates an amorphous porous structure that rapidly degrades. A general procedure for preparing his ODT using this technique is described here.

Figure 1: Flow chart of Freeze-drying or lyophilization



Freeze-drying technology has shown improved absorption and enhanced bioavailability. The

major drawbacks of freeze-drying technology are its cost and time. Because they are fragile, traditional packaging is not suitable for these products, resulting in poor stability under stress conditions.

2. Tablet molding:

There are two types of molding methods: the solvent method and the heat method. In the solvent process, the powder mixture is moistened with a hydroalcoholic solvent, followed by low pressure compression of the molded plaque to form a wet mass. The solvent is then removed by air drying. Tablets produced by this method are less compact than compressed tablets and have a porous structure that facilitates dissolution. The heat-molding process involves preparing a suspension containing drug, agar, and sugar. Pour the suspension into the wells of the blister pack, allow the agar to solidify at room temperature to form a jelly, and vacuum dry at 300 °C. Mechanical strength of molded tablets is very important. Binders should be incorporated to increase the mechanical strength of the tablet. Taste masking is an additional problem with this technique. Taste-masked drug particles were prepared by spray congealing a molten mixture of hydrogenated cottonseed oil, sodium carbonate, lecithin, polyethylene glycol, and active ingredient into a lactose-based crushed tablet form. Compared to freeze-drying technology, tablets made by molding technology are easier to scale up for industrial production.

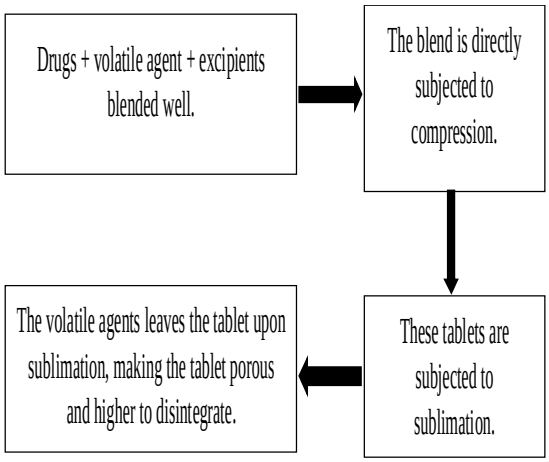
3. Spray drying:

In this technique, gelatin can be used as supporting agent and matrix, mannitol is used as bulking agent, and sodium starch glycolate or croscarmellose or crospovidone are used as superdisintegrants. Made from spray-dried powder. Tablets have been reported to disintegrate in aqueous media in less than 20 seconds. This formulation contained bulking agents such as mannitol and lactose, super-disintegrants such as sodium starch glycolate and croscarmellose sodium, and acidic (citric acid) and/or alkaline ingredients (such as sodium bicarbonate). This spray dried powder compressed into tablets showed rapid disintegration and improved dissolution.

4. Sublimation:

To create a porous matrix, volatile ingredients are incorporated into the formulation, followed by a sublimation process. Volatile ingredients such as ammonium bicarbonate, ammonium carbonate, benzoic acid, camphor, naphthalene, urea, urethane, and phthalic anhydride can be compressed into tablets along with other excipients. This temporary material is removed by sublimation, leaving a highly porous matrix. It has been reported that tablets made with this technology typically disintegrate in 10-20 seconds. Solvents such as cyclohexane benzene can also be used as pore forming agent.

Figure 2: Flow chart of sublimation process.



5. Direct compression

Direct compression is the simplest and cheapest technique for producing tablets. This technology has become applicable to the production of MDTs due to the availability of improved excipients, especially super-disintegrants and sugar-based excipients.

a. Superdisintegrants: In many orally disintegrating tablet technologies based on direct compression, the addition of superdisintegrants primarily affects the disintegration rate, i.e., the dissolution rate. presence of other formulation ingredients such as water-soluble excipients and effervescent

agents further accelerates the degradation process.

b. Sugar based excipients: This is another way to create an MDT by direct compression. Use characteristics and pleasant mouthfeel of sugar-based excipients, especially bulking agents such as dextrose, fructose, isomalt, lactylol, maltilol, maltose, mannitol, sorbitol, starch hydrolysates, polydextrose, xylitol. Sugar-based excipients are classified into two types based on their rate of formation and dissolution.

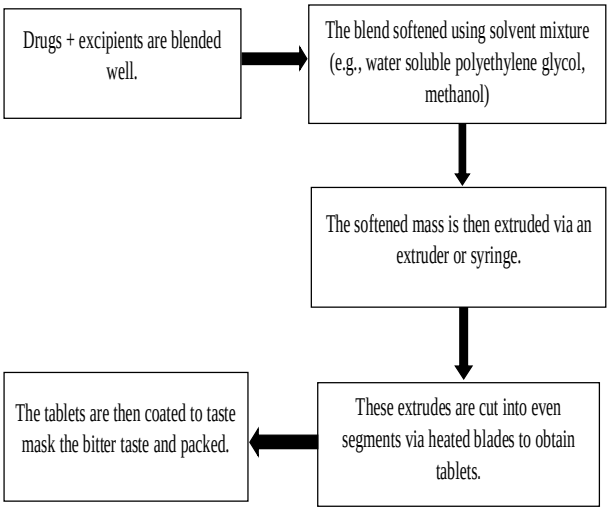
• Type 1 saccharides (lactose, mannitol) have low plasticity but high dissolution rates.

• Type 2 saccharides (maltose, multirole) have high formability and slow dissolution rate.

6. Mass-extrusion:

This technology uses a solvent mixture of water-soluble polyethylene glycol and methanol to soften the active mixture, then ejects the softened mass through an extruder or syringe to form a cylinder of product into uniform segments. Cut tablets using a heated blade. The dried cylinders can also be used for taste masking by coating granules of bitter substances.

Figure 3: Flow chart of Mass-extrusion:



Patented technologies for mouth dissolving tablets:

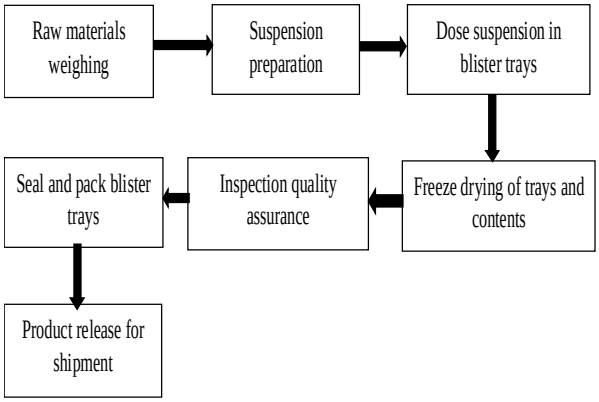
Rapid dissolving characteristics of MDT is generally attributed to fast penetration of water into tablet matrix resulting in its fast disintegration. Several technologies have been developed on the basis of formulation aspects and different process and patented by several pharmaceutical companies. Patented technology is described below:

1. Zydis technology
2. Durasolv technology
3. Orasolv technology
4. Wow tab technology
5. Flashdose technology/Cotton candy process
6. Flashtab technology
7. Oraquick technology
8. Lyoc technology
9. Advatab technology

1. Zydis technology:

Zydis Technology (ZT) is a patented technology. ZT uses a proprietary freeze-drying process to manufacture complete dosage units that are significantly different from traditional oral systems. In this technique, a solution or suspension of the drug in water is poured into pre-formed blisters (which give the tablet shape) and placed in a cryogenic chamber specifically designed to control the size of the ice crystals. Through a freezing process to ensure the stability of the tablets. The matrix shows rapid disintegration. These freezing units are transferred to a large freeze dryer for the sublimation process where most of the remaining moisture is removed from the tablets and the open blisters are packaged using a heat-sealing process.

Figure 4: Zydis technology:



2. Durasolv technology:

Durasolv is a second-generation patented technology designed to create robust MDTs. Durasolv has much higher mechanical strength

than Orasolv due to the use of higher packing pressures during compression. This makes production much faster and cheaper and can be packaged in conventional blister packs or vials. Limitations of Durasolv are its low drug loading capacity, high compression pressure, and taste-masked coating which are not suitable for pellet incorporation.

3. Orasolv technology:

Orasolv is also a patented technology. Orasolv tablets are slightly compressed, making them weaker and more fragile than traditional tablets. CIMA LABS develops special handling and packaging systems for Orasolv. The advantage of the low degree of compression is that the particle coating used for taste masking is not affected by breakage during pressing.

4. Wowtab technology:

Wowtab is a patented technology developed in Japan. This technology was used to manufacture Benadryl Fast orodispersible tablets. This technology combines two different sugars to create a tablet formulation with moderate hardness and fast dissolution rate. Due to its higher hardness, WOWTAB formulations are more stable to environmental conditions than Zydis and Orasolv and are suitable for both conventional bottles and blister packs. The taste-masking technology used in WOWTAB is unique and is said to provide superior mouthfeel due to its patented smooth melting action.

5. Flash Dose technology:

The flash dose technology is patented by fuisz. Nurofen Meltlet is a new oral dispersion of ibuprofen manufactured using flash dose technology and is Biovail Corporation's first commercial product to market. Flush dose tablets are made from a self-adhesive shear form matrix known as "floss". Shear forming molds are made by rapid heat treatment. Fuisz Technologies has three of his oral drug delivery systems associated with rapid dissolution. The first two generations of fast dissolving tablets, Soft Chew and EZ Chew, require chewing. But they paved the way for Fuisz's latest development, Flash Dose. Flash Dose technology uses a unique spinning mechanism to create a floss-like crystalline structure similar to cotton candy. This crystalline sugar contains the active ingredient and is compressed into tablets. This process is patented by his Fuisz and is known as shearing. The final product has a very large surface area for dissolution. As soon as you put it on your tongue, it stretches and melts. Interestingly, changes in temperature and other conditions during manufacturing can significantly alter product properties. Instead of stringy materials, tiny beads of sugar can be made to carry drugs. The process of making microspheres, patented by Huis, known as CEFORM1, serves as an alternative method of taste masking.

6. Flashtab technology:

Flashtab is a patented technology, but the tablets are directly compressed. Flashtabs contain drug crystals and microparticles coated with a disintegrant. The technology uses his two types of disintegrants: high-expansion and low-expansion.

7. Oraquick technology:

OraQuick's fast dissolving/disintegrating tablet formulation uses a patented taste-masking technology. KV Pharmaceuticals claims their microsphere technology, known as MicroMask, provides a superior mouthfeel to taste-masking alternatives. The taste-masking process does not use solvents, allowing for faster and more efficient production. OraQuick also produces less heat of formation than alternative fast dissolution/disintegration technologies, making OraQuick suitable for heat-sensitive pharmaceuticals. KV Pharmaceutical also claims that the matrix that surrounds and protects the drug powder within the microencapsulated particles is more flexible. This means that tablets can be compressed to achieve great mechanical strength without disturbing the taste masking. OraQuick claims to dissolve quickly in seconds with good taste masking. Although there are currently no products on the market using OraQuick technology, KV Pharmaceuticals is developing products such as pain relievers, cough and cold remedies, psychotropics and anti-infectives.

8. Lyoc technology:

Lyoc is a porous, solid form of herbal medicine obtained by freeze-drying an oil-in-water emulsion that is injected directly into the blister alveolus. The manufacturing process involves freezing a thickened (paste like) emulsion containing the active ingredient as bulk or coated microparticles. The product can absorb high doses and disintegrate quickly but has low mechanical strength.

9. Advatab technology:

AdvaTab tablets rapidly disintegrate in the mouth, typically within 30 seconds, allowing masking technology and Diffucaps® controlled-release technology. The combination of AdvaTab and Microcaps creates a product that offers the dual benefit of a patient-preferred formulation along with great taste and smooth mouthfeel. This is an important advantage, as the drug's unpleasant taste severely limits the application of other his ODT techniques.

Table 1: Examples:

Product	Examples	Active ingredient	Therapeutic indication	Manufactured by
Zydis	Feldene	Piroxicam	Osteoarthritis, rheumatoid arthritis	Pfixer limited
Durasolv technology	Parcopa	Levodopa Carbidopa	Parkinson's disease	Sun pharma
OroSolv technology	Fazaclo	Clozapine	Antipsychotic drug	Cima labs
WowTab technology	Benadry	Diphenhydramine hydrochloride	Antihistamine, allergy, sinus	Pfixer limited
Flash dose technology	Ralivia	Tramadol hydrochloride	Opioid analgesic	Bioavail
Flash tab technology	Nurofen	Ibuprofen	NSAID	Athena
Oraquick technology	Hyoscyamine sulphate MDT	Hyoscyamine sulphate	Used in Diarrhea, GIT ulcer, bowel syndrome	Ethex corporation
Lyoc technology	Sparfon lyoc	Phoroglucinol hydrate	Antispasmodic	Cephalon
Advatab technology	Advatab cetirizine	Cetirizine	Antihistamine	ADARE pharmaceuticals

Evaluation of mouth dissolving tablets:

General Appearance: The general appearance of a tablet, its visual identity and over all "elegance" is essential for consumer acceptance. Include in are tablet's size, shape, colour, presence or absence of an odour, taste, surface texture, physical flaws and consistency and legibility of any identifying marking.

Size and Shape: The size and shape of the tablet can be dimensionally described, monitored, and controlled.

Weight variation: 20 tablets were randomly selected from the batch and weighed individually to check for weight variation. Weight variation specifications by I.P. are shown in below:

Table 2: Weight variation:

Average weight of tablet	% Deviation
80 mg or less	± 10
More than 80 mg or but less than 250 mg	± 7.5
250 mg or more	± 5

Assay: Twenty tablets of each batch were precisely weighed, and powder equivalent to 100 mg of the drug was shaken with 100 ml of 0.1N hydrochloric acid in a 100 ml brown volumetric flask, and 10 ml was pipetted to dilute to 100 ml. Pipette an additional 10 ml from the standard solution and dilute to 100 ml.

Tablet hardness: Tablet strength is expressed in terms of tensile strength (kg/cm2). Tablet crushing load, which is the force required to break a tablet in half by compression. It was

measured using an instrument called as tablet hardness tester (Pfizer hardness tester).

Content uniformity: Five tablets were powdered and the blend equivalent to 4 mg of Tizanidine Hcl was weight and dissolved in suitable quantity of pH 1.2 solutions. Solution was filtered and diluted, and drug content analysed spectrophotometrically at 228 nm.

Friability: The pharmacopoeia limit for tablet friability testing is 1% or less using a tablet friability tester at 25 rpm for 4 minutes (100 revolutions). However, achieving brittleness within this limit for MDT products while maintaining hardness at the lowest possible level to achieve the lowest possible disintegration time presents a significant challenge for formulators. Again, this test is not applicable to freeze-dried or flash-dose tablets, but tablets manufactured by direct compression and molding techniques must have sufficient mechanical strength to withstand abrasion during shipping and handling and to withstand storage.

Swelling property: Film swelling studies is conducted using simulated saliva solution. Each film sample is weighed and placed in a pre-weighed stainless steel wire mesh which is then submerged into 15ml medium in a plastic container. Increase in the weight of the film was determined at preset time interval until a constant weigh was observed. The degree of swelling was calculated using parameters

$$\alpha = (wt - wo)/wo$$

Wt is weight of film at time t, and wo is weight of film at time zero.

Transparency: The transparency of the films can be determined using simple UV spectrophotometer. Cut the film samples into rectangles and placed on the internal side of the spectrophotometer cell. The determine transmittance of films at 600 nm. The transparency of the films was calculated as follows:

$$Transparency = (logT600)/b = - €c$$

Where, T600 is the transmittance at 600 nm and b is the film thickness (mm) and c is concentration.

Disintegration time: Disintegration of films that dissolve rapidly in the mouth requires a US disintegrator. The disintegration time limit of 30 seconds or less for orally dissolving tablets as stated in the Centre for Drug Evaluation and Research (CDER) guidelines can be applied to fast dissolving oral strips. Disintegration times vary by formulation, but typically the disintegration range is 5-30 seconds.

Dissolution test: Dissolution testing can be performed using standard basket or paddle apparatus as described in pharmacopoeias. The dissolution medium is selected essentially according to sink conditions and the highest drug dose. Dissolution testing can be difficult as the strips often tend to float on the dissolution medium when using a paddling device.

Table 3: Examples:

Brand Name	Manufactured by/for	Active ingredient	Category	Indication
Abstral	Sentynl Therapeutics	Fentanyl	Opioid	Breakthrough pain in persons with cancer
Adzenys XR-ODT	Neos Therapeutics	Amphetamine	Amphetamines, Stimulants	Attention deficit hyperactivity disorder
Alavert Quick Dissolving Tablets	Wyeth	Loratadine	Antihistamines	Allergy

Brand Name	Manufactured by/for	Active ingredient	Category	Indication
Allegra ODT	Sanofi Aventis	Fexofenadine	Antihistamines	Allergic rhinitis, Urticaria
Aricept ODT[52]	Eisai Co.	Donepezil	Acetylcholinesterase inhibitors	Alzheimer's disease
Benadryl FastMelt[28,29]	Pfizer	Diphenhydramine	Antihistamines	Allergy
Calpol Fast Melts[53]	McNeil Healthcare UK	Paracetamol	Analgesics	Pain
Cipralex MELTZ[54]	Lundbeck	Escitalopram	SSRIs, Antidepressant	Major depressive disorder, Generalized anxiety disorder, Obsessive–compulsive disorder
Clarinex RediTabs[55-63]	Schering-Plough	Desloratadine	Antihistamines	Allergy
DDAVP Melt	Ferring Pharmaceuticals	Desmopressin	Antidiuretic	Bedwetting, Central diabetes insipidus
Edluar[64-68]	Meda AB	Zolpidem	Nonbenzodiazepine Hypnotics	Short-term treatment of insomnia
Etizest MD[69]	Consern	Etizolam	Benzodiazepine analog/thienotriazolodiazepine	Short-term treatment of anxiety and insomnia
FazaClo	AzurPharma	Clozapine	Antipsychotics	Treatment-resistant schizophrenia
Fluimucil[70]	Alpex Pharma SA / Zambon Group	N-acetylcysteine	Mucolytic	Cold and Cough
Jr. Tylenol Meltaways	McNeil Consumer Healthcare	Acetaminophen	Analgesics, Antipyretics	Pain, Fever
Kemstro[71-73]	UCB Inc.	Baclofen	Muscle relaxant, Antispastic	
Klonopin Wafers[74-75]	Roche	Clonazepam	Benzodiazepines, Anticonvulsant, Anxiolytics	Seizure disorders

Brand Name	Manufactured by/for	Active ingredient	Category	Indication
Lamictal ODT	Aptalis / GlaxoSmith Kline	Lamotrigine	Anticonvulsant, Mood stabilizer	Seizure disorders, bipolar disorder
Maxalt-MLT[77]	Merck & Co.	Rizatriptan	Triptans, Serotonin agonists	Migraine
Meloxicam orodispeRsible tablets	Alpex Pharma Ltd (UK); Fontus Health Ltd (UK)	Meloxicam	NSAIDs	Osteoarthritis, Rheumatoid arthritis, Ankylosing spondylitis
Niravam	Schwarz Pharma	Alprazolam	Benzodiazepines, Anxiolytics	Anxiety disorder, panic disorder
Nocdurna	Ferring Pharmaceuticals	Desmopressin	Antidiuretic	Nocturia
NuLev	Alaven Pharmaceutical	Hyoscyamine	anticholinergic / antispasmodic	Peptic ulcer, Symptoms of various gastrointestinal and urinary disorders
Nurofen Meltlets	Reckitt Benckiser	Ibuprofen	NSAIDs	Pain, Fever, Inflammation
Orapred ODT	Sciele Pharma	Prednisolone	Corticosteroids	Asthma, Severe allergy, Haemolytic anaemia, Stevens–Johnson syndrome, Certain types of tuberculosis; acute treatment of arthritis, Bursitis, COPD, Leukaemia, Lupus, Multiple sclerosis, Ulcerative colitis
Parcopa	Schwarz Pharma	Carbidopa, Levodopa	DDC inhibitors [carbidopa], Dopamine precursor [levodopa]	Parkinson's disease
Pepcid RPD	Scherer DDS / Merck	Famotidine	Histamine H2-receptor antagonists	duodenal ulcer, gastric ulcer, gastroesophageal reflux disease, pathological hypersecretory conditions
Prevacid SoluTab	Takeda Pharmaceuticals	Lansoprazole	Proton pump inhibitors	Gastro-oesophageal reflux disease (GERD), Ulcers
Propulsid Quicksolv (withdrawn)	Janssen Pharma	Cisapride	Gastroprokinetic agent	

Brand Name	Manufactured by/for	Active ingredient	Category	Indication
Reglan ODT	Meda Pharms, Schwarz Pharma	Metoclopramide	Antiemetics, Dopamine receptor antagonists	short-term therapy for GERD, acute diabetic gastric stasis
Remeron SolTab	Merck & Co.	Mirtazapine	Antidepressants	Major depressive disorder
Risperdal M-Tab	Janssen Pharma	Risperidone	Atypical antipsychotics	Schizophrenia, bipolar disorder
Rybix ODT	Victory Pharma	Tramadol	Opioid, SNRI	Pain
Saphris	Merck & Co.	Asenapine	Atypical antipsychotics	Schizophrenia, bipolar disorder
Staxyn	Bayer Healthcare	Vardenafil	Phosphodiesterase 5 (PDE5) inhibitor	Erectile dysfunction
Striant Buccal	Columbia Laboratories	Testosterone	Androgen, Steroid hormone	Hypogonadism (Low testosterone)
Suboxone tablets (also available as dissolvable film)	Reckitt Benckiser	Buprenorphine/Naloxone	semi-synthetic opioid partial opioid agonist & inverse opioid antagonist	Opioid addiction
Suprenza	Alpex Pharma / Citius	Phentermine	Amphetamines, Anorectic	Weight control
Ultram ODT	Ortho-McNeil Pharmaceutical	Tramadol	Opioid, SNRI	Pain
Unisom SleepMelts	Chattem	Diphenhydramine	Antihistamines, Hypnotic	Insomnia
Vometa FT	Dexamedica	Domperidone	Antiemetics, Prokinetic agent	Dyspepsia, Bloating, GERD, Gastroparesis
Zelapar	Valeant Pharmaceuticals International	Selegiline	Monoamine oxidase B inhibitors (MAOBIs)	Adjunct therapy in Parkinson's disease
Zofran ODT	GlaxoSmithKline	Ondansetron	Antiemetics	Nausea, Vomiting
Zomig-ZMT	AstraZeneca	Zolmitriptan	Triptans, Serotonin agonists	Migraine

Brand Name	Manufactured by/for	Active ingredient	Category	Indication
Zyprexa Zydis	Eli Lilly and Company	Olanzapine	Atypical antipsychotics	Bipolar disorder, Schizophrenia
Zyrtec	Johnson & Johnson Consumer Inc.,	Cetirizine	Antihistamines	Allergy

CONCLUSION:

Mouth Dissolving Tablets (MDT) are manufactured by various processes such as crystal transformation, phase transformation, sublimation, spray drying and direct compression. Of these approaches, conventional tablet compression is the most used due to its low cost and ease of manufacture. Research on MDT should focus on reducing tablet dissolution time in the mouth while maintaining sufficient mechanical strength to withstand handling during manufacturing, packaging, and transportation. Compression Processes The key to successful MDT formulations is the selection of appropriate excipients and processing techniques. Generally, MDTs are made of highly hydrophilic materials and have a highly porous structure for rapid uptake of moisture into the tablet matrix.

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