

McKesson  
*Readmissions Resource™*



# CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) *Prevent • Diagnose • Treat*

**McKESSON**



# Guide Reference

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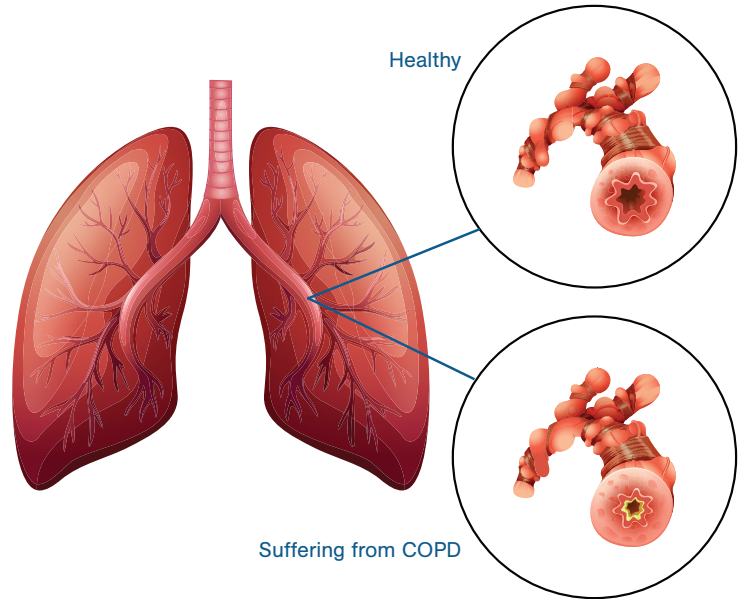
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# Overview of Chronic Pulmonary Obstructive Disorder (COPD)

COPD is a common, preventable and treatable disease characterized by **limited airflow due to airway and/or alveolar abnormalities**.

COPD is not completely reversible, and is ongoing. It is usually caused by **significant exposure to toxic particles or gases**.

COPD has previously been labeled as asthma, chronic bronchitis and emphysema. While the symptoms are similar, COPD should be considered its own disease state.



## COPD Statistics

**4<sup>th</sup>**

*leading cause of death  
in the world*

Projected to be the **3rd**  
leading cause by 2020

More than **12 million**  
have been diagnosed.

With another **12 million**  
who probably have the disease  
and don't know it.



Typically doesn't  
become  
disabling for

**20-30 years**

after its onset

**15%** of people  
over the age of 65 have COPD

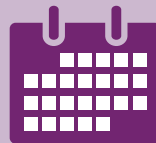
*not including those who  
have not been diagnosed*

**6%** of all deaths  
globally



In the US, more than **120,000**  
die each year of COPD. That  
equates to **one death every  
four minutes.**

Average time for  
readmission is  
**12 days**  
post discharge



## ***Etiology***

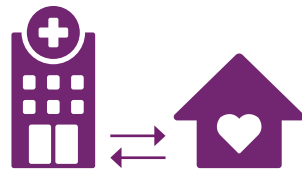
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Normal changes in the respiratory system don't cause problems for most aging people. However, in COPD, the structural changes in the lungs cause a **reduced amount of oxygen to be taken into the blood stream, tissues, and vital organs.**

The decrease in the amount of air moved in and out with each breath leads to air left in the lungs. **This increases breathing effort and creates the symptoms of COPD.**

Approximately  
**22%**  
*of COPD patients are  
readmitted within  
30 days*

- 1/3 are discharged within a week
- 2/3 within two weeks



# Symptoms of COPD

Pay careful attention to the signs of COPD. If the following symptoms occur in a patient, seek help immediately.



**Shortness of breath  
and breathlessness**  
(may appear to be gasping for air)



**Chronic cough**  
(not always present, more  
prevalent as disease progresses)



**Sputum production**  
(small amounts may be  
produced after coughing)



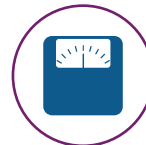
**Wheezing**  
(may occur due to narrow airways,  
decreased number of alveoli)



**Fatigue**



**Depression and  
anxiety**



**Weight loss**



## ***Risk Factors and Preventative Measures***

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There are several **preventative measures** that can be taken to reduce the risk of COPD.

- Smoking cessation is the most effective method of COPD prevention. E-cigarettes have not been shown to decrease the prevalence of COPD.
- Reducing exposure to occupational dusts, fumes, gases and all pollutants
- Influenza and pneumonia vaccination
- Physical and respiratory exercise
- Education and self-management
- Early identification and diagnosis

### **Risk Factors**



#### **Smoking**

Including secondhand smoke



#### **Comorbidities**

Congestive heart failure (CHF),  
Hypertension, Diabetes



#### **Smoke**

Home cooking, heating fuels



#### **Occupational dusts**



#### **Vapors, fumes and gases**



#### **Pollution and other chemicals**

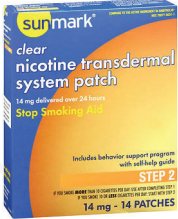



#### **Recurrent respiratory infections**







## Prevention

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
NICOTINE PRODUCTS			
	McKesson/Sunmark	70677003201	Nicotine Transdermal System Patch - Stop Smoking Aid, 21MG
	McKesson	70677003101	Nicotine Transdermal System Patch - Stop Smoking Aid, 14MG
	McKesson	70677003001	Nicotine Transdermal System Patch - Stop Smoking Aid, 7MG
	McKesson	49348069236	Nicotine Gum (mint) - Stop Smoking Aid, 4MG
	McKesson	49348069136	Nicotine Gum (mint) - Stop Smoking Aid, 2MG
INFLUENZA VACCINE			
	Seqirus	NDC # 70461-018-03	Influenza Vaccine



## Prevention

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
PNEUMONIA VACCINE			
	Pfizer	2751675	Pprevnar 13 Pneumonia Vaccine
	Merck	00006483703	Pneumomax 23 Pneumonia Vaccine
NO SMOKING SIGNS			
	Sunset Healthcare	RES003	"No Smoking" Signs



Log in to **SupplyManager** to order products.



## Diagnosis

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There are no markers for COPD, so spirometry is the gold standard for confirming airflow limitations. Spirometry measure how well the lungs function by **measuring the amount of forcefully exhaled air (FEV)**. There is a predication based on several factors including age, gender, height and ethnicity.

The test is performed **once without administering a bronchodilator and then again after administration**. These results are used for determining disease presence and severity.

Mild COPD  
is **80%** of predicted FEV

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Moderate COPD  
is equal to **50 – 80%** of FEV

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Severe COPD  
is equal to **30 – 50%** of FEV

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Very severe COPD  
is **less than 30%**  
of predicted FEV





## Diagnosis

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
RESPIRATORY			
	McKesson	141-2500-2	Spirometer Lumeon
	McKesson	159-MCLNC	Nose Clip (Blue)
	McKesson	16-834V2	Handheld Pulse Oximeter
DIAGNOSTIC			
	Welch Allyn	CP150AS-1ENB	ECG Monitor with Spirometry Module
	Vyaire	001901A	Spirometer AirLife 4
LAB - MODERATELY COMPLEX			
	Abbott	891429	Abbot iStat ABG CLIA Moderate Complex



## Diagnosis

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
LAB - WAIVED			
	Sysmex	CT129514	Sysmex CBC CLIA Waived
	McKesson	4999	Strep Test - CLIA Waived Strep A Dipstick (50 tests/KT)
	McKesson	181-36025	Flu Test - CLIA Waived Influenza A & B (25 tests/KT)
LAB - EQUIPMENT			
	Covidien	2650SA	Sputum collection






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## Clinical Assessment Tools

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
EQUIPMENT - PATIENT ASSESSMENT			
	Welch Allyn	71WT-B	Welch Allyn Connex Spot Monitor
	Welch Allyn	H-BP100SBP	Blood Pressure Monitor Home™ Desk 1-Tube
	McKesson	01-768-641-11ABKGM	Aneroid Sphygmomanometer/Sprague Kit Adult Arm
	McKesson	01-670BKGM	Lumeon Classic Stethoscope Black 1-Tube 28" Double Sided Chestpiece
	McKesson	16-93651	Handheld Finger Pulse Oximeter
	McKesson	01-415GM	Oral Rectal Thermometer
	3M	2201	Littman Classic Stethoscope II SE Black 1-Tube 28" Double Sided Chestpiece
	3M	2160	Littman Master Cardiology Stethoscope Black 1-Tube 27" Double Sided Chestpiece Tunable Diaphragm



## Clinical Assessment Tools

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
EQUIPMENT - PATIENT ASSESSMENT			
	Health O Meter	1100KL	Scale, 3 sided hand rail bariatric
	Health O Meter	500KL	Scale, Physician Dig w/ HT Rod 500 LB
	Health O Meter	895KLT	Scale, Digital Floor Talking Bilingual 550LB Cap
	ADC	429	Infrared Adtemp 429 Hand Held Non-Contact Thermometer



Log in to **SupplyManager** to order products.



## Treatment

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COPD status is primarily maintained. The goals of maintenance are to:

- Prevent exacerbation – Most patients with COPD will have exacerbations or flare ups. These can occur quickly or over time. **Symptoms can be managed by the increased use of bronchodilators, steroids and, occasionally, antibiotics.** If symptoms become severe, hospitalization maybe required.
- Improve quality of life
- Reduce symptoms
- Improve health status and exercise tolerance

**Pharmacologic therapy can reduce COPD symptoms**, reduce the frequency and severity of exacerbations and improve health status and exercise tolerance.

Each pharmacologic treatment regimen should be guided by the severity of symptoms, risk of exacerbations, side effects, comorbidities, drug availability and cost, as well as patient response, preference and ability to use various drug delivery devices.

**Inhaler technique needs to be assessed regularly.**





## Treatment

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
	GENERAL MAINTENANCE		
	Drive Medical	RTL10273	Exercise Peddler
	Drive Medical	Hcane-BK-C2	Cane
	Drive Medical	795BU	Rollator/Transport
	Drive Medical	3827	Bed Wedge
	Drive Medical	RTL15063-ADJ	Bed Assist Rail
	Stander	5000	Bed Assist Rail
	Colgate	168860	Electric Toothbrush
	McKesson	146-R726BK	Rollator
	McKesson	146-K318DDA-SF	Wheelchair






# Treatment

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
	McKesson	169-5631	Exercise Band, Yellow X-Light
	McKesson	169-5632	Exercise Band, Red Light
	McKesson	169-5633	Exercise Band, Green Medium
	McKesson	169-5634	Exercise Band, Blue Heavy
	McKesson	169-5635	Exercise Band, Black X-Heavy
	McKesson	146-12202KDR	Bath Seat w/ Back
	McKesson	146-RTL12031KDR	Transfer Bath Bench
	McKesson	2B1322Q	Grab Bar, 12,16,18,24" Length
	McKesson	146-12016-3	Tub Grab Bar
	McKesson	146-12037	Hand Held Shower
	McKesson	146-RTK12027RA	Raised Toilet Seat
	McKesson	146-10210-1	Walker with Wheels




## Treatment

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
OXYGEN THERAPY & MEDICATION DELIVERY			
	Drive/DeVilbiss	525DS	Oxygen Concentrator
	Philips Respironics	1020015	Oxygen Concentrator
	McKesson	32637	Nasal Cannula
	McKesson	32648	Ear Cushions
	McKesson	32646	Non-kink Extension Tubing
	McKesson	35630	Dry Humidifier
	McKesson	16-93651	Reacher
	Teleflex Medical	8884719025	Voldyne Spirometer



## Treatment

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
OXYGEN THERAPY & MEDICATION DELIVERY			
	McKesson	32643	Nebulizer Kit Small Volume 10 mL Adult Aerosol Mask
	McKesson	32642	Nebulizer Kit Small Volume 10 mL Adult Mouthpiece
	McKesson	3655LT	McKesson Compressor Nebulizer System
	Drive Medical	NEB KIT 500	Nebulizer Kit
	Drive Medical	18080	Power Neb Ultra Nebulizer Kit Bottle Universal Mouthpiece
	Drive Medical	4650D	DeVilbiss PulmoMate Nebulizer Compressor



# *Nutritional Issues and Goals*

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## **Nutritional Issues:**

Symptoms of COPD can result in:

- Decreased appetite and malnutrition
- Difficulty with chewing and swallowing due to fatigue
- Altered ability to taste due to chronic mouth breathing
- Mental status change due to excessive CO<sub>2</sub> production
- Loss of respiratory muscle strength

## **Nutritional Goals:**

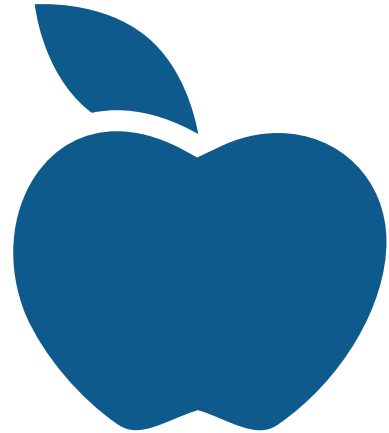
- Maintain a healthy body weight and avoid electrolyte deficiencies
- Excess weight causes heart and lungs to work harder causing breathing difficulty
- Underweight can be caused by malnutrition and increase chances of infection
- Maintain nutritional status to improve energy, boost immune status and fight inflammation
- Preserve lean body mass and adipose tissue to retain respiratory muscle strength, force and function and prevent involuntary weight loss
- Retain bone mass





## *Dietary Suggestions*

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- Smaller, more frequent feedings (five to six smaller meals per day)
- Avoid overeating foods that cause gas and bloating
- Include enough fiber to avoid constipation
- Include lower sodium/low fat foods and fluids to avoid fluid retention
- Consume enough fluids to thin and clear lung secretions and before and after meals to help with satiety
- Consume nutrient-dense meals with high calorie/high protein supplements as needed
- Assure adequate intake of vitamins and minerals such as: calcium, magnesium, phosphorous, potassium, vitamin C, vitamin D, vitamin E, beta-carotene and selenium
- Avoid aspiration by breathing carefully, swallowing and sitting properly while eating






## COPD Nutritional Formulary

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
OVER THE COUNTER			
	McKesson	3509486	Bisacodyl Tab 5MG, General Laxative
	McKesson	2051704	Stool Softener Soft Gel (100 ct)
	McKesson	3511953	Senna Laxative (100 ct)
	McKesson	3511896	Milk of Magnesia 16oz
	McKesson	57896074806	Calcium 600mg w/ Vitamin D (60 ct)
	McKesson	57896053101	Multi-Vitamin 100ct
	McKesson	60-703-01	Iron Supplement 325 mg (100 ct)
	McKesson	60-841-01	Vitamin C Supplement 500mg (100 ct)
NUTRITION			
	Abbott Nutrition	54064	TwoCal HN - Butter Pecan 8oz




## COPD Nutritional Formulary

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
NUTRITION - THICKENED BEVERAGE			
	Kent Precision	B455-L9044	Thick-It AquaCare H2O - Apple - 8oz
	Kent Precision	B451-L9044	Thick-It AquaCare H2O - Unflavored - 8oz
	Kent Precision	J585-C6800	Thick-It Food Thickener - Unflavored - 32oz
NUTRITION - PROTEIN SUPPLEMENT			
	Medical Nutrition USA	40464-U	ProStat Protein Supplement - Sugar Free Vanilla - 1oz
	Medical Nutrition USA	40230	ProStat AWC - Citrus Splash - 30oz
	Medical Nutrition USA	30064	ProStat - Citrus Splash - 30oz
	Medical Nutrition USA	10064	ProStat - Wild Cherry Punch - 30oz
	Nestle	4390094139	Boost High Protein - Very Vanilla - 8oz
NUTRITION - FIBER SUPPLEMENT			
	Medical Nutrition USA	70001	Fiber Stat Fiber Supplement - Natural - 30oz
	Nestle	4390097551	Nutrisource Fiber Supplement - Unflavored - 7.2oz





## COPD Nutritional Formulary

	MANUFACTURER	MANUFACTURER #	ITEM DESCRIPTION
NUTRITION - ORAL SUPPLEMENT			
	Nestle	12187365	Boost Plus - Rich Chocolate - 8oz
	Nestle	09450300	Boost Pudding - Very Vanilla - 5oz
	Nestle	27600000	Resource 2.0 - Very Vanilla - 32oz
	Nestle	4390093331	Boost Plus - Creamy Strawberry - 8oz
	Nestle	4390018216	Boost VHC - Very Vanilla - 8oz
	Nestle	4390067438	Boost Vanilla, 8oz - 24/cs
	Nestle	4390067639	Boost Strawberry, 8oz - 24/cs
	Nestle	4390067538	Boost Chocolate, 8oz - 24/cs
	Nestle	4390047993	Complete Blends, Organic Chicken
	Nestle	439919270	Complete Blends, Organic Plant-based
	Nestle	9871616480	Nutren Pulmonary - Vanilla - 250 mL
	Abbott Nutrition	64811	Pulmocare Vanilla, 8oz - 24/cs
	Abbott Nutrition	64905	Ensure Plus - Vanilla - 8oz
	McKesson	3516135	NutriSure - Chocolate - 8oz



**This guide has been assembled using the following resources as source material:**

**Understanding Why Patients With COPD Get Readmitted**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4420180/>

**Preventable Versus Nonpreventable by SNF Staff Chronic Obstructive Pulmonary Disease in Post-acute/Long-term Care Settings: Seizing Opportunities to Individualize Treatment and Device Selection**

[https://www.jamda.com/article/S1525-8610\(17\)30191-3/pdf](https://www.jamda.com/article/S1525-8610(17)30191-3/pdf)

**COPD Readmissions: Addressing COPD in the Era of Value-based Health Care**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5812767/>

**COPD Patient 30-Day Hospital Readmission Reduction Program**

[http://www.nonin.com/documents/WhitePaper\\_COPDReadmissionReductionProgram.pdf](http://www.nonin.com/documents/WhitePaper_COPDReadmissionReductionProgram.pdf)

**Reducing Readmissions in COPD Patients**

<https://www.americannursetoday.com/reducing-readmissions-copd-patients/>

**Addressing the Airway Clearance & Inhaled Medication Components of Excess COPD Readmissions**

<https://westmedinc.com/wp-content/uploads/2017/09/COPD-Readmission-Reduction-Program-9-8-2017-Squeezed.pdf>

**Global Initiative for Chronic Obstructive Lung Disease (GOLD)**

<https://goldcopd.org/>

**McKesson Academy™**

<http://mms.mckesson.com/mckesson-academy>

**Drive Medical**

<https://www.drivemedical.com>

**Vyaire**

<https://www.vyaire.com>

**American Lung Association**

<http://www.lung.com>

**American Association for Respiratory Care**

<http://www.aarc.org>



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Have additional questions?

Contact our Clinical Resource Team at [mckessonclinicalconnection@mckesson.com](mailto:mckessonclinicalconnection@mckesson.com).

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