

Writing Prescription

here's a general format and information typically included in a prescription for glasses: -

Hassan Aljaberi optics								
Patient Name:						Date:		
Prescription Details								
	SPH	CYL	AXIS	ADD	VA SC	VA CC	PD	PRISM
RE (OD)								
LE (OS)								
Remark								
Type of Lens								
Type of Frame								

- 1. Heading:** Start by including your name, contact information, and professional designation (e.g., Optometrist or Ophthalmologist). You may also include your clinic's name, address, and phone number.
- 2. Patient Information:** Include the patient's full name, date of birth, and any relevant identification or medical record number.
- 3. Date:** Indicate the date the prescription is written.
- 4. Sphere (Sph):** This indicates the amount of nearsightedness (if the value is negative) or farsightedness (if the value is positive). The sphere power is measured in diopters (D). It is typically written in increments of 0.25 D.
- 5. Cylinder (Cyl):** This indicates the presence of astigmatism, which is a condition causing blurred vision due to an irregularly shaped cornea. The cylinder power is also measured in diopters and may be accompanied by an axis value, which represents the orientation of the astigmatism.
- 6. Axis:** The axis value is specified when astigmatism is present. It is measured in degrees and denotes the orientation of the astigmatism.

7. Addition (Add): If the patient requires a prescription for reading glasses or bifocals, the "add" value indicates the additional power needed for near vision. It is typically written as a positive value and measured in diopters.

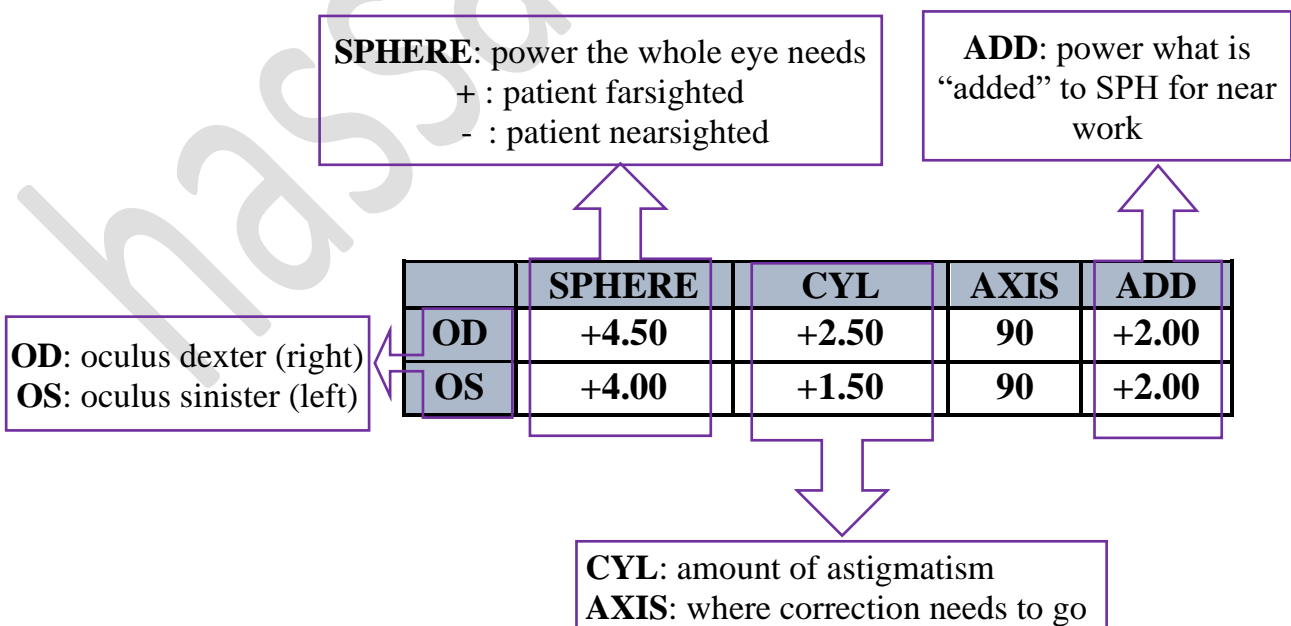
الفئة العمرية (سنة)	متوسط قوة عدسة القريب (دايوبتر)
40 – 44	+0.50 – +1.00
45 – 49	+1.25 – +1.75
50 – 54	+2.00 – +2.50
55 – 59	+2.75 – +3.25
اكبر من 60	+3.50 و اكثر

8. Prism: In some cases, patients may require prism correction to address eye alignment issues or binocular vision problems. The prism value indicates the amount of prism power needed and is measured in prism diopters (Δ).

9. Pupillary Distance (PD): The pupillary distance is the distance between the centers of the pupils. It is measured in millimeters and helps ensure the optimal alignment of the lenses with the patient's eyes. PD can be measured using specialized equipment or estimated based on average values.

10. Additional Notes: If there are any specific instructions or notes for the optician, you can include them here. For example, you might specify the lens material, lens coating options, or any other relevant details.

Understanding a Prescription



Transposition تحويل الوصفة الطبية

It is a mathematical process that changes the signs and powers of the lens so that we have two reading formats for the same optical power.

The purpose of the transposition: to facilitate the reading of the cylindrical lens from one reading to another, according to the manufacture of the lens by commercial companies.

خطوات عملية تحويل الوصفة الطبية

يتم تحويل صيغة كتابة الوصفة الطبية فقط للعدسات الاسطوانية cylinder (البسيطة simple ، المركبة compound، المختلطة mixed) بثلاث خطوات وكما يلي:

1- قوة العدسة الكروية **sphere** الجديدة: ناتج المجموع الجبري لقوى العدسة الكروية والاسطوانية

2- قوة العدسة الاسطوانية **cylinder** الجديدة: نفس القوة الاسطوانية للوصفة السابقة مع تغير الاشارة فقط

3- المحور **axis** الجديد: المحور المتعامد على محور الوصفة السابقة

ملاحظة / اذا كانت درجة المحور اقل من 90، نقوم بجمعها مع 90
واذا كانت درجة المحور اكثر من 90، نقوم بطرح 90 منها
"اي بمعنى يجب ان يكون المحورين متعامدين مع بعضهما بزاوية 90 درجة"

Example 1: transposition of the prescription

+3.00 DS / -1.00 DC X 180 °
answer : +2.00 DS / +1.00 DC X 90 °

Example 2: transposition of the prescription

-1.50 DS / +3.00 DC X 35 °
answer : +1.50 DS / -3.00 DC X 125 °

Example 3: transposition of the prescription

-0.50 DS / +1.00 DC X 120 °
answer : +0.50 DS / -1.00 DC X 30 °

Example 4: transposition of the prescription

-2.00 DS / +1.00 DC X 5 °
answer : -1.00 DS / -1.00 DC X 95 °

Example 5: transposition of the prescription

-1.00 DS / +1.00 DC X 80 °
answer : 0.00 DS / -1.00 DC X 170 °

Example 6: transposition of the prescription

+1.00 / -1.00 DC X 90 °
answer : 0.00 DS / +1.00 DC X 180 °

إذا كانت قوى الوصفة (الكروية والاسطوانية) متشابهة وإشارتهم مختلفة

فإن نوع العدسة اسطوانية بسيطة simple cylinder

SUMMARY

- Heading with optometrist/ophthalmologist name, clinic info
- Patient name, date of birth, ID number
- Date prescription written
- Sphere (Sph) - amount of nearsightedness/farsightedness (in diopters)
- Cylinder (Cyl) - astigmatism correction (diopters), may include axis
- Axis - orientation of astigmatism correction (degrees)
- Addition (Add) - extra power needed for reading (diopters)
- Prism - for eye alignment/binocular vision issues (prism diopters)
- Pupillary distance (PD)

It also explains how to transpose a prescription - mathematically changing the signs and powers for different lens manufacturing formats. Steps:

1. New sphere power: sum of old sphere and cylinder
2. New cylinder power: same as old but opposite sign
3. New axis: perpendicular (90 degrees) to old axis

HOME WORK

1. What is the purpose of specifying the pupillary distance (PD) in a prescription?
2. Given a prescription of $-2.00DS/+1.00DC \times 5^\circ$, write out the transposed prescription and type of cylinder.
3. What is meant by a "simple cylinder" lens, write a brief explanation of this type?
4. A patient's prescription is $+1.50DS/-0.75DC \times 135^\circ$. Write out what the transposed prescription would be for this patient.