

Taking anti-rejection medicine

Tips for solid organ transplant recipients

Take the right dose at the right time every day

- Always have at least a 2-week supply of medicines available. **Never run out.** If you do run out or lose your medicine, call your pharmacy or transplant team, or go to the nearest emergency department.
- Do not stop taking your anti-rejection medicines or change doses on your own.
- Call your transplant coordinator if you have questions about your dose. If you have questions outside of office hours, call your local pharmacy or continue with your last ordered dose and call your transplant program the next business day.
- If you are instructed to not eat or drink before a test or procedure, keep taking your anti-rejection medicines on time with sips of water.
- On days that you have medicine level blood testing, the test must be done **before** taking your morning anti-rejection medicines.

Anti-rejection medicines

Prevent rejection of your transplanted organ by taking one or more of the following medicines:

- tacrolimus (Prograf, Advagraf, or Envarsus)
- sirolimus (Rapamune)
- cyclosporine (Neoral)
- mycophenolate (CellCept or Myfortic)
- prednisone
- azathioprine (Imuran)

Call your transplant team or local pharmacist during regular working hours with any questions about your anti-rejection medicines. If they are not available, and you have not been given specific instructions, follow the general guidelines on the next pages for managing missed doses, nausea, vomiting, or diarrhea.

If you missed a dose of your anti-rejection medicine

Consider how much time there is between your doses. Use the **halfway point** as a general guide:

- For medicines you take **2 times a day**, the time between doses is 12 hours. The halfway point is 6 hours. If you are less than 6 hours from your usual first dose time, take the missed dose. If you are more than 6 hours from your usual first dose time, skip the missed dose. Take your next dose at the regular time.
- If you take medicine **1 time a day**, the time between doses is 24 hours. The halfway point is 12 hours. If you are less than 12 hours from your usual dose time, take the missed dose. If you are more than 12 hours from your usual dose time, skip the missed dose. Take your next dose at the regular time.

How to calculate your halfway point

Steps	Examples only		
1. Write down the times you usually take your doses.	7 a.m. & 7 p.m.	8 a.m. & 8 p.m.	9 a.m. & 9 p.m.
2. Count the number of hours between doses.	There are 12 hours between doses.		
3. Divide that number by 2.	$12 \div 2 = 6$		
4. Add this to the time you usually take your first dose = halfway point.	7 a.m. + 6 hours = 1 p.m.	8 a.m. + 6 hours = 2 p.m.	9 a.m. + 6 hours = 3 p.m.

You can also use these steps to calculate the halfway point for once daily medicines.

Call your transplant coordinator about missed or late doses as this may affect your blood results. If you call outside of office hours, leave a message for your transplant coordinator.

Your transplant team may be able to help you find ways to avoid missing doses of your anti-rejection medicines.



Nausea, vomiting, and diarrhea

If you experience nausea or vomiting and have anti-nausea medicine available, take it 30 minutes before your anti-rejection medicines are due.

If you vomit after taking anti-rejection medicine:

- **For babies less than 1 year of age:**
 - If they vomit within 10 minutes of taking their anti-rejection medicine, wait for their stomach to settle and give the entire dose again.
 - If they vomit between 10 to 20 minutes after taking their anti-rejection medicine, wait for their stomach to settle and give **half** the dose again.
 - When giving the dose again, give the anti-rejection medicine on its own and wait 30 minutes before giving any other medicines.
 - **Only repeat the dose once.** If your baby's stomach does not settle and they cannot keep medicines down, call your transplant coordinator during regular working hours or your transplant doctor on call outside of working hours.

- **For children (1 year or older) and teenagers (under 18 years old):**
 - If they vomit within 15 minutes of taking their anti-rejection medicine, wait for their stomach to settle and give the entire dose again.
 - If they vomit between 15 to 30 minutes after taking their anti-rejection medicine, wait for their stomach to settle. If they take **liquid** medicines, give **half** the dose again. If they take **pill** medicines, only retake the dose for the pills that you can see and identify in the vomit.
 - When giving the dose again, give the anti-rejection medicine on its own and wait 30 minutes before giving any other medicines.
 - **Only repeat the dose once.** If your child or teen's stomach does not settle and they cannot keep medicines down, call your transplant coordinator during regular working hours or your transplant doctor on call outside of working hours.

- **For adults:**
 - If you vomit within 1 hour after taking your anti-rejection medicines, only retake the dose for the pills that you can see and identify in the vomit.
 - Wait for your stomach to settle before taking the dose again.
 - **Only repeat the dose once.** If your stomach does not settle and you cannot keep medicines down, call your transplant coordinator during regular working hours or go to your local emergency department.



Diarrhea:

If your transplant team has told you that your diarrhea is caused by your medicine, you may take loperamide (Imodium). Follow the package instructions for how to take loperamide. Do **not** take loperamide for diarrhea caused by an infection.

Go to your local emergency department with nausea, vomiting, or diarrhea if you:

- cannot take your anti-rejection medicines and keep them down
- cannot drink fluids and keep them down
- have dark, infrequent urine (pee) or you have stopped peeing
- have a fever higher than 38°C (if you are taking prednisone, watch for a temperature of 37.5°C or higher)

Drug interactions

- Tell your pharmacist, dentist, and other doctors about your anti-rejection medicines.
- Ask your pharmacist and your transplant team to check for drug interactions between **any** new medicines and your anti-rejection medicines.
- Anti-rejection medicines can be taken with food or on an empty stomach. Choose one way and take it the same way each time.

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Many drugs and some foods interact with your anti-rejection medicine.

Contact the transplant program before starting any new medicines, including non-prescription (over-the-counter) medicines to make sure they are safe for you. It is safe to use acetaminophen when recommended by your transplant team.

Do not take:

- Herbal medicines and products that claim to “boost” the immune system
- Ibuprofen (Advil, Motrin), naproxen (Aleve), acetylsalicylic acid (ASA, Aspirin) more than 81 mg, and other nonsteroidal anti-inflammatory drugs (NSAIDs)

Food interactions

- Grapefruit, pomelo, tangelo, and Seville orange can interact with your anti-rejection medicine. Do not eat the fruit or any juices or jams that are made from the fruit.



Vaccines

Never take any live vaccines after you have received a transplant. Usually, you should delay any vaccines until 3 to 6 months after your transplant. Talk to your transplant team before getting any immunizations.

Travelling with anti-rejection medicines

When you travel, bring enough medicine for the length of your trip plus 2 weeks extra in case of delays. If you will be away for a long period or are going to a remote place, talk to your pharmacist about an extra supply of medicine.

Keep medicines in your carry-on-bag and in their original pharmacy containers with the labels on them.

Planning for travel:

1. Call your transplant team before planning or booking any travel to:
 - check that it is safe for you to travel
 - request a letter for taking your medicines through security and customs
 - talk about when to take your anti-rejection medicines if you are travelling to a different time zone
 - talk about any other medicines you may need while travelling
2. Book a visit to your local travel immunization clinic and ask about recommendations for non-live travel vaccines and other medicines to prevent infection.

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