

# Render Environment Variables Setup for Cloudinary

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## Overview

This guide provides step-by-step instructions for configuring Cloudinary environment variables in Render for the CareLinkAI application.

## Prerequisites

- Access to Render Dashboard: <https://dashboard.render.com/>
- Cloudinary account with API credentials
- CareLinkAI service deployed on Render

## Step-by-Step Instructions

### Step 1: Access Render Dashboard

1. Navigate to <https://dashboard.render.com/>
2. Log in with your credentials
3. Locate the **CareLinkAI** service in your dashboard

### Step 2: Open Environment Variables

1. Click on your **CareLinkAI** service
2. Navigate to the **Environment** tab in the left sidebar
3. You should see a list of existing environment variables

### Step 3: Add Cloudinary Environment Variables

Add the following environment variables one by one:

#### Variable 1: CLOUDINARY\_CLOUD\_NAME

- **Key:** CLOUDINARY\_CLOUD\_NAME
- **Value:** your\_cloud\_name\_here (get from Cloudinary dashboard)
- **Type:** Secret (recommended)

#### Variable 2: CLOUDINARY\_API\_KEY

- **Key:** CLOUDINARY\_API\_KEY
- **Value:** your\_api\_key\_here (get from Cloudinary dashboard)
- **Type:** Secret (recommended)

#### Variable 3: CLOUDINARY\_API\_SECRET

- **Key:** CLOUDINARY\_API\_SECRET
- **Value:** your\_api\_secret\_here (get from Cloudinary dashboard)
- **Type:** Secret (**REQUIRED** - this is sensitive)

#### Variable 4: NEXT\_PUBLIC\_CLOUDINARY\_CLOUD\_NAME

- **Key:** NEXT\_PUBLIC\_CLOUDINARY\_CLOUD\_NAME

- **Value:** `your_cloud_name_here` (same as Variable 1)
- **Type:** Plain (this is public and safe to expose)

### **Variable 5: CLOUDINARY\_URL (Optional)**

- **Key:** `CLOUDINARY_URL`
- **Value:** `cloudinary://your_api_key:your_api_secret@your_cloud_name`
- **Type:** Secret (recommended)

### **Step 4: Save Changes**

1. After adding all variables, click **Save Changes** button
2. Render will automatically trigger a new deployment
3. Wait for the deployment to complete (usually 3-5 minutes)

### **Step 5: Verify Deployment**

#### **Check Deployment Logs**

1. Go to the **Logs** tab
2. Look for successful deployment messages
3. Check for any Cloudinary-related errors

Expected log entries:

- Build succeeded
- Starting service
- Service is live

### **Test File Upload**

1. Navigate to <https://carelinkai.onrender.com>
2. Log in to the application
3. Try uploading a file:
  - Go to Family Portal → Gallery
  - Click “Upload Photos”
  - Select an image and upload
  - Verify the image appears in the gallery
4. Alternative test - Upload a document:
  - Go to Operator Dashboard → Residents
  - Select a resident
  - Go to Documents tab
  - Upload a test document
  - Verify the document appears

### **Verify in Cloudinary Dashboard**

1. Log in to Cloudinary: <https://console.cloudinary.com/>
2. Go to **Media Library**
3. Check for newly uploaded files under the `carelinkai/` folder
4. Verify files are stored correctly

# Troubleshooting

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## Issue: Environment variables not taking effect

### Solution:

1. Clear Render's build cache:
  - Go to Settings → Build & Deploy
  - Click "Clear Build Cache"
  - Trigger manual deploy
  
1. Restart the service:
  - Go to Manual Deploy
  - Click "Clear build cache & deploy"

## Issue: Upload fails with “Cloudinary not configured”

### Possible Causes:

- Environment variables not saved
- Service not redeployed after adding variables
- Typo in variable names

### Solution:

1. Double-check variable names (case-sensitive)
2. Verify all 5 variables are present
3. Trigger a manual redeploy
4. Check deployment logs for errors

## Issue: 401 Unauthorized Error

### Possible Causes:

- Incorrect API credentials
- API secret mismatch
- Cloud name typo

### Solution:

1. Verify credentials in Cloudinary dashboard
2. Check for extra spaces in values
3. Ensure cloud name is exact (e.g., `dygtsnu8z` not `dygtsnud8`)
4. Regenerate API credentials if needed

## Issue: Files not appearing in Cloudinary

### Possible Causes:

- Wrong cloud name
- Incorrect folder structure
- API key/secret mismatch

### Solution:

1. Check Cloudinary dashboard for correct cloud name
2. Verify credentials match your account
3. Test with the connection script locally first

## Security Notes

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### ⚠ Important Security Considerations

#### 1. Never commit credentials to git

- `.env` file is gitignored
- Always use environment variables in production

#### 2. Use “Secret” type for sensitive values

- `CLOUDINARY_API_SECRET` must be Secret
- `CLOUDINARY_URL` should be Secret
- `CLOUDINARY_API_KEY` should be Secret

#### 3. Only use “Plain” for public values

- `NEXT_PUBLIC_CLOUDINARY_CLOUD_NAME` is safe as Plain
- This is exposed to the browser intentionally

#### 4. Rotate credentials periodically

- Update Cloudinary API credentials every 6-12 months
- Update both Cloudinary and Render when rotating

#### 5. Monitor usage

- Check Cloudinary usage reports
- Set up alerts for unusual activity
- Monitor bandwidth and storage limits

## Rollback Procedure

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If you need to rollback the Cloudinary integration:

#### 1. Remove Environment Variables (if needed):

- Go to Environment tab in Render
- Delete Cloudinary-related variables
- Save changes

#### 2. Redeploy Previous Version:

- Go to Deploys tab
- Find the last successful deploy before Cloudinary
- Click “Redeploy” on that version

#### 3. Verify Application:

- Test that application works without Cloudinary
- File uploads may be disabled or use alternative storage

## Additional Resources

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- **Render Documentation:** <https://render.com/docs/environment-variables>
- **Cloudinary Documentation:** <https://cloudinary.com/documentation>
- **CareLinkAI Cloudinary Setup:** See `docs/CLOUDINARY_SETUP.md`

## Support

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If you encounter issues:

1. **Check Render Logs:** Look for specific error messages
2. **Review Cloudinary Status:** <https://status.cloudinary.com/>
3. **Contact Support:**
  - Render Support: <https://render.com/support>
  - Cloudinary Support: <https://support.cloudinary.com/>

## Environment Variable Summary

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Copy-paste ready format for quick setup:

```
CLOUDINARY_CLOUD_NAME=your_cloud_name_here
CLOUDINARY_API_KEY=your_api_key_here
CLOUDINARY_API_SECRET=your_api_secret_here
NEXT_PUBLIC_CLOUDINARY_CLOUD_NAME=your_cloud_name_here
CLOUDINARY_URL=cloudinary://your_api_key:your_api_secret@your_cloud_name
```

**Note:** Replace these placeholders with your actual Cloudinary credentials from your Cloudinary dashboard.

## Verification Checklist

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Use this checklist after deployment:

- [ ] All 5 environment variables added to Render
- [ ] Variables marked as “Secret” where appropriate
- [ ] Deployment completed successfully
- [ ] No errors in deployment logs
- [ ] Application loads without errors
- [ ] Test file upload in Gallery works
- [ ] Test document upload works
- [ ] Files appear in Cloudinary Media Library
- [ ] Thumbnail generation works
- [ ] File deletion works (if implemented)

## Timeline

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- **Adding Variables:** 2-3 minutes
- **Render Deployment:** 3-5 minutes
- **Total Setup Time:** ~5-10 minutes

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