Medical Illustrator

At a Glance

Medical illustrators use their knowledge of art and science to create illustrations for the health and medical fields.

Search by Cluster

Fashion & Design
Medical & Health

Earnings

Typical Earnings Range: 45K - 75K

Level of Education

- University

Core Tasks

- Research the subject matter and audience
- Create images by hand or with computers
- Provide illustrations for medical textbooks, ads, brochures, charts, and other print media
- Some work on videos or websites, or create three-dimensional models
- May specialize in a particular area, such as drawings of the eye

Attributes & Abilities

- Drawing ability
- An interest in science
- Detail-oriented
- Computer skills
- Self-motivated and disciplined

Workplace

- Employers include hospitals, clinics, medical schools, drug companies, publishers, and lawyers
- Most work on a freelance basis
- Work in studios, production departments, and home offices
- Often sit for long periods of time
- Usually work 40 to 60 hours a week

Job Description

Whether it’s an image of a wound in the doctor’s office, or a diagram of the human nervous system in an anatomy textbook, most of us have seen some kind of medical illustration.

Medical illustrators are professional artists who create illustrations for the health and medical fields. This means that they have to have an understanding of science as well as artistic ability. Their work can be seen in a wide variety of places, including medical advertisements, textbooks, journals, magazines, brochures, charts, presentations, exhibits, and medicine packages. They may also prepare drawings for court cases.

Medical illustrators work with other types of media as well. They may work on videos, computer animations, and websites. Some illustrators also create three-dimensional teaching models and prosthetic parts.
A prosthetic part, or prosthesis, is an artificial body part, like an arm or leg.

Medical professionals, students, patients, and the public in general all benefit from the efforts of medical illustrators. Medical illustrations can show a doctor how to perform a medical procedure, and they can also educate the public about diseases and how the body functions.

There are different types of medical illustration. Some illustrations are precise and realistic, while others are abstract and interpretive. For example, illustrations of complicated procedures in medical textbooks must be extremely detailed and precise. On the other hand, there are also more basic or even humorous illustrations, such as the ones that are sometimes displayed in dental offices to show what happens if teeth aren’t brushed regularly.

Regardless of what they are drawing, medical illustrators start by gathering information about their audience and the subject matter. First, they need to know who will view the illustration and for what purpose. For instance, is it for a public health brochure or a medical textbook?

Next, they review the written information on the subject, examine medical photographs and images, and perform any additional research. Finally, they create the images by hand or with computer programs. They may also add labels or captions to highlight important aspects of the illustrations.

Some illustrators choose to specialize in their work. For example, an illustrator may only do drawings that have to do with the eyes and eye surgery.

**Working Conditions**

Medical illustrators work for hospitals, universities, medical schools, clinics, pharmaceutical companies, publishers, ad agencies, and medical professionals. Lawyers also hire illustrators to provide drawings for court cases. Some illustrators work full time for one employer, but most work on a freelance basis.

Illustrators usually work in well-lit and clean environments. They may work in small studios, production departments, or home offices.

Illustrators often sit for long periods of time and should take frequent breaks to avoid neck, back, wrist, and eye strain. They must also deal with the pressure of deadlines.

Medical illustrators usually work 40 to 60 hours a week. Evening and weekend work may be required for freelancers, depending on deadlines and workload.

**Earnings**

Income for medical illustrators depends on a number of factors. These factors include job experience, level of responsibility, artistic skills, and job location, among others. The type of work medical illustrators do also affects how much money they make.

Medical illustrators who are employed on a full-time basis by a single employer often start out earning around $45,000 to $55,000 a year. With experience, their income can rise to $75,000 a year or more. Some senior medical illustrators earn over $100,000 a year.

Freelance illustrators charge fees for their services. Their fees can be based on hourly rates, or they can charge a specific fee for each illustration. Fees for individual illustrations vary a great deal. Artists can charge anywhere from about $50 for a single piece of work to thousands of dollars for a whole project.

Annual earnings for freelancers depend on the amount of work they are able to get over the course of the year, and the fees they charge for their work. Freelancers who are able to maintain steady work often earn more than salaried medical illustrators.

However, while salaried illustrators usually receive benefits such as dental coverage and paid sick leave, freelancers must provide their own benefits.
Education

Medical illustrators usually have formal training in art and training in biomedicine.

Most medical illustrators have a master’s degree in medical illustration. There are only a handful of universities in North America that offer these programs. Not all programs are called medical illustration; they may be called biomedical illustration or biomedical communications.

In order to get into a master’s-level program, you need to have a 4-year bachelor’s degree. Entrance requirements vary, but you generally need to have completed a number of science and art courses as part of your undergraduate degree. You also need to show that you have artistic ability by submitting a portfolio that showcases your art.

Medical illustration students take courses in the medical field (for example, anatomy, pathology, and embryology) as well as courses in visualization and illustration. Computer animation is also covered. Programs usually take 2 years to complete.

Voluntary certification is available for those who graduate from degree programs accredited by the Association of Medical Illustrators (AMI). It is also available for those with 5 years of experience in the field and proof of successful completion of a dissection course in gross human anatomy or a similar course.

To become certified you must pass a written exam and submit a portfolio for review. You then become a Certified Medical Illustrator (CMI). Continuing education is required to keep your certification. Please see the Other Resources section for a link to the AMI site.

Related College & University Programs

- Illustration
- Drawing
- Health Studies
- Biomedical Communications
- Graphic Design

Other Suggested Qualifications

If you are considering a career in medical illustration, you should have excellent drawing skills. Life drawing skills are particularly important. The ability to draw objects and people realistically is crucial. In addition to artistic talent, you should also enjoy, appreciate, and understand science. Medical illustrators pay great attention to detail. Their work must be accurate and very precise. Computer skills are very important since medical illustrators work with graphics-based programs. As a medical illustrator, you should be self-motivated and disciplined. Most illustrators work freelance and need to generate their own employment. Freelance illustrators should also have a strong understanding of business in order to work successfully.

Suggested High School Subjects

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
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<tbody>
<tr>
<td>English</td>
<td>English</td>
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<tr>
<td>Mathematics</td>
<td>Mathematics</td>
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<tr>
<td>Science</td>
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<tr>
<td>Social Studies</td>
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<tr>
<td>Creative Arts</td>
<td>Personal &amp; Career Development</td>
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<tr>
<td>French</td>
<td>Visual Arts</td>
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<td>Health &amp; Physical Education</td>
<td>Computers</td>
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<table>
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<tr>
<th>Grade 11</th>
<th>Grade 12</th>
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<tbody>
<tr>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics</td>
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<tr>
<td>Biology</td>
<td>Biology</td>
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Important

- Check with your advisor to make sure that your course selections satisfy your graduation requirements.
- Courses available may vary from school to school.

Sample Career Path

People take different pathways through their careers, but no one starts at the top. This is an example of how the earnings, education and experience requirements, and responsibilities might progress for someone in this occupation.

Level 1

<table>
<thead>
<tr>
<th>Sample Title</th>
<th>Medical Illustrator (recent graduate)</th>
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<tbody>
<tr>
<td>Earnings</td>
<td>$45,000 to $55,000 a year</td>
</tr>
<tr>
<td>Requirements</td>
<td>• Master's degree from an accredited school</td>
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<tr>
<td>Responsibilities</td>
<td>Preparing sketches and graphics by hand and on computer; doing simple illustrations, such as those intended for textbooks.</td>
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Level 2

<table>
<thead>
<tr>
<th>Sample Title</th>
<th>Senior Illustrator</th>
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</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>$50,000 to $75,000 a year</td>
</tr>
</tbody>
</table>
| Requirements          | • Several years of experience in medical illustration  
                        | • Some management training         |
| Responsibilities      | Supervising a number of employees; working on and assisting others with difficult and complex medical illustration projects. |

Level 3

<table>
<thead>
<tr>
<th>Sample Title</th>
<th>Freelance Medical Illustrator</th>
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</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>$50,000 to $100,000 a year or more</td>
</tr>
</tbody>
</table>
| Requirements          | • Many years of experience  
                        | • A network of contacts  
                        | • Business training    |
Responsibilities
Seeking clients; running your own business; creating a variety of medical illustrations using different media.

Related Careers
Here are some other occupations that you might be interested in. Click on an occupation name to learn more.

- Animator
- Artist
- Cartoonist
- Computer Animator
- Doctor
- Drafter
- Illustrator
- Kinesiologist
- Multimedia Developer
- Technical Writer

Career Clusters
Career Clusters are groups or families of occupations that share common characteristics such as knowledge requirements, skill sets, and/or goals.

Fashion & Design

Medical & Health

National Occupational Classification
NOC Code: 5241

Other Resources

Association of Medical Illustrators (AMI)
http://www.ami.org
This organization promotes the use of visual arts in the medical and scientific fields. Click on Medical Illustration to learn more about becoming a medical illustrator.

University of Toronto – Division of Biomedical Communications
http://www.bmc.med.utoronto.ca
This is the website of the biomedical communications program at the University of Toronto. You can check out what programs are offered and see the work students have produced.

University Affairs – So you want to be a medical illustrator?
This short article is a great read for anyone interested in this career.

Vesalius Trust (US)
http://www.vesaliustrust.org
Created by the AMI, the Vesalius Trust offers scholarships and grants for education and research in the field of medical illustration. Click on Grants & Scholarships to find out about research and educational opportunities.

Commission on Accreditation of Allied Health Education Programs (US)
http://www.caahep.org
An American organization that accredits post-secondary education programs for health science
professions.
Click here for more information about medical illustration:
http://www.caahep.org/Content.aspx?ID=44

Institute of Medical Illustrators (UK)
http://www.imi.org.uk
A great UK-based site with all kinds of information about medical illustration.
Click here to find out more about different career possibilities: