

HOW TO OBTAIN AN ORTHOPAEDIC RESIDENCY

Introduction

This guide was prepared to help minority and women medical students obtain an orthopaedic residency, a task that is extremely competitive. The steps you take during the first two years of school can enhance your professional profile, thereby improving your candidacy when the time comes to submit your application. The decisions and preparations you make when applying for residencies and rehearsing for interviews can determine your success. This guide to obtaining an orthopaedic residency provides a complete timeline, outlines the application process, and offers interview strategies.

The Diversity Advisory Board, established by the American Academy of Orthopaedic Surgeons (AAOS) in 1997, formulated the following mission statement:

“The Diversity Advisory Board endeavors to significantly improve minority and female access to the orthopaedic profession. Women, African Americans, Native Americans, Hispanic/Latino Americans, mainland Puerto Ricans, and other minority Americans are underrepresented in our profession. Asian American minorities, though not underrepresented, experience ethnic, racial, and gender biases. The members of the Diversity Advisory Board aspire to educate orthopaedic surgeons in ways to maximize rapport and understanding with female and minority populations. The goals are to enhance the patient-physician relationship, eliminate disparities in health care, and optimize access to orthopaedic care. The Board seeks to create an atmosphere of goodwill and collegiality towards women and minorities in the orthopaedic profession, and to make this known to the world of medicine in general.”

The Basics

There are approximately 150 accredited orthopaedic residency programs, with over 3,000 residents nationally, and 610 positions available for new residency applicants. In general, there are 1.15 applicants for each open position, with a mean USMLE score of 230. 32% of applicants were AOA, 62% of applicants had publications at the time of their application, and 93% had worked on prior research projects. Orthopaedic training takes five years, with the option of further training in one of a variety of fellowships.

Preparing for an Orthopaedic Residency

Years one and two

Planning and working ahead will increase your chances of obtaining an orthopaedic residency. The first step is to **find a mentor** in orthopaedics at your home school. Network. Talk to your mentor, medical school faculty, and colleagues. Whose name keeps coming up? Who just received a large grant or prestigious fellowship? Who does the medical school administration tout and advertise? Attend orthopaedic department conferences to meet these denizens. Attend weekly grand rounds. Join departmental indications conferences typically held early in the morning or late in the afternoon.

Volunteer to assist with these surgeons' research. During the first two years you need to **network and establish your reputation**. Many students think that this just happens. It doesn't! Make a conscious effort to get to know people and to become known. You are laying the groundwork to obtain an orthopaedic residency.

The AAOS has also developed a mentoring network throughout the country with orthopaedists who have volunteered to help medical students gain exposure to orthopaedics as a specialty. For information, contact the AAOS Mentoring Program at **(847) 384-4163**.

An orthopaedic-related research project is one means of distinguishing your application from the throng and demonstrating your dedication to the field. Although research experience is not mandatory, it is strongly recommended in today's competitive environment. In addition, summer research work should be considered. Your medical school's orthopaedic department probably has on-going research projects—any pertinent musculoskeletal research will enhance your profile.

Research experience may also be gained by working with your mentor or other faculty on their research projects. Network, communicate your interests, ask what they are working on, make yourself available, and request to work with them—you'll get yourself known, establish a pool of references, obtain great research experience, and perhaps get your name added to a journal article. While most work is voluntary, you may arrange a **mini-research fellowship** during the summer break or as a third or fourth year elective.

Also, watch for grant-writing opportunities. If you assist a faculty member with a grant, you may be named as a research assistant.

A second way to distinguish your application is by including a **recommendation letter** from an orthopaedist who knows you well, and can compose a glowing letter with specific experiences and observations of your stellar qualities. Form an affiliation with a good mentor and accompany them to the clinic and operating room. Ask questions and become familiar with the environment and routine. Become involved in activities and procedures as appropriate. Request or take responsibility when offered.

Research faculty members at your medical school. A literature search will garner information regarding the publications a surgeon has authored. Review the number of publications, prestige of the publishing journals, and topics covered.

Year three

In most medical schools the third year is the beginning of full-time clinical experience with mandatory rotations. Although your surgery evaluation or grade is important to gaining an orthopaedic residency, **you should strive to obtain the highest achievable grade in all your rotations.** This reflects on your consistency of effort and performance, and is also factored into determining AOA membership.

Most students are not at their best during their first rotation. Typically, the first rotation is the most confusing because, in addition to learning that specific rotation, students are adjusting to being in a clinical setting. If you have any control over your schedule, try to place your surgery rotation in the middle of the year. If possible, place the obstetrics/gynecology rotation before the surgery rotation, as it will give you the

opportunity to gain some surgical exposure. Not all schools offer a musculoskeletal rotation, but if your school does, you should participate in this and do well.

Year four

This is the year you choose electives and apply for residencies. It's important to have some orthopaedic experience particularly if your medical school does not offer a rotation in any type of musculoskeletal medicine. Consider **arranging to do an 'away rotation' or sub-internship at a program that interests you.** Your mentor, department orthopaedists, and residents at your institution can help you decide where to do this away rotation.

Faculty/program flux at some institutions may make these less desirable, and your mentor is more likely to know about this. Some programs may have a subspecialty that interests you or you may wish to choose a program with a reputation known to academic orthopaedists. Some programs have

limited positions for visiting students, and it is important you decide and apply early.

Treat the away rotation as an extremely lengthy interview. Find out ahead of time what cases you will be involved with the following day. Read ahead on the surgical approach and thoroughly review the relevant anatomy. The resident selection process varies at each institution, and feedback provided by the residents and staff you work with will be important.

While doing away rotations in the fall of your fourth year, consider obtaining a letter of recommendation from a faculty member at that program if you feel you have performed well. This type of letter demonstrates that you can work well with people you have only known for a short period of time and will complement the rest of your application.



The Application

The vast majority of Orthopaedic departments now utilize ERAS (Electronic Residency Application Service) for the residency application process. ERAS is an online service that transmits residency applications, letters of recommendations, transcripts and other supporting credentials from you and your Dean's office to program directors.

When and how to begin

The process usually begins in July of your fourth year. You will receive an electronic token from your Dean's office that you can use to register on the MyERAS web site. You can complete your application, assign supporting documents, and select your programs online. It is likely you will need a few weeks to complete the process, **so begin early!**

Completed applications can be transmitted to the programs you choose usually from September on, and the Dean's letters are released in early November. The deadline for applications is set by each residency program. Most applications are due in October or November of your fourth year.

Residency interviews generally take place between October and February, with match results released sometime in March.

Information on residency programs is available on the Internet by accessing the AMA home page, and then selecting the Fellowship and Residency Interactive Electronic Database Access (FRIEDA). The website address is www.ama-assn.org. In addition, most departments have websites that provide a good overview. Some programs require materials in addition to ERAS, which will be listed on their website.

Selection basis

Establish a selection process by listing residency factors important to you.

- Is the program located where you would like to ultimately settle?
- Is there ongoing research in an area of interest?
- Is there strong subspecialty training in an area of interest?
- Do you know someone who had a good experience at the residency?
- What is the overall reputation of the program?
- What is the history of the program in regards to minority graduates?

Currently, orthopaedic residents are 90% male, and 75% Caucasian. Accurate data on the number of applications received from women or minority candidates, and the positive or negative quality of their experience is not available. The reputation of a program in regards to its minority participants is not a reliable barometer because the director or character of the program may have changed. Mentors can provide information from their own experience and networks. The residency program coordinator at individual programs may be able to provide you with contact information of current minority residents. To learn more, please contact the AAOS at (847) 384-4163.

How many applications?

The quantity of applications you should submit depends on your overall qualifications. If you were elected into AOA (honor society) in your fourth year, participated in research leading to a published article relevant to orthopaedics, did well on your clerkships and away rotations, and received excellent letters of recommendation, consider yourself highly qualified for an orthopaedic residency. Highly competitive programs or those in desirable locations often have a lower chance of acceptance. Most candidates will submit between 20 and 40 applications.

ERAS has a standard fee of \$60 (2007) for the first ten applications, and an additional tiered charge for each ten applications up to 30 applications. You will be charged for each individual program above 30 applications.

Completing the application

The application is your doorway to an interview. Programs receive as many as 200 to 500 applications from which 50 to 75 applicants are invited to an interview. The basics to compete for that interview slot are:

- Meet the deadline
- Provide a readable application; do a spell check!
- Furnish accurate information

Be concise; be thorough. Include all accomplishments and honors, particularly ones that make you stand out compared to others. Include class rank, relevant medical school exams, AOA selection, research projects and publications. Do not include frivolous or inaccurate information. Most programs don't begin to look at applications until the deadline, so early applications do not necessarily have an advantage. Some programs offer interviews earlier or review and date stamp

applications as they come in, so it may be beneficial for you to submit your application as soon as possible after ERAS opens.

Letters of recommendation

Who writes your letter and how well they know you may be the most critical part of your application.

Interviews are often granted to applicants submitting letters of recommendation from prestigious orthopaedists, orthopaedists connected to that specific program, or alumni. Someone who has worked with you on research projects, at their clinic, or in the operating room can write a more comprehensive letter of recommendation citing pertinent abilities and character traits based on personal encounters and specific incidents. The Dean's letter is usually comprehensive, but is not given much weight in the selection process. However, the absence of the Dean's letter would be considered a conspicuous omission.

After faculty and surgeons have agreed to act as references, **provide them with background information (such as your goals) and your curriculum vitae.** You may even wish to suggest what aspect of your experience, abilities, or character you think they could best address. Ensure accurate delivery of the letters by supplying legible address labels (computer generated are best) and a calendar of deadlines. Provide each attending with the ERAS cover letter sheet, which needs to be submitted to the Dean's office with each letter. The Dean's office will then upload the letter of recommendation into ERAS. Remember to send letters of appreciation to your references.

Biography

In general, residency programs want residents who can communicate well, who have interests outside of medicine, who learn quickly, and who will fit in with the current program. Be honest, concise, and thorough. Emphasize accomplishments that show why you are an outstanding candidate. **Describe specific experiences and anecdotes to illustrate your abilities and qualities that make you a good candidate** for their program.

Selecting an Orthopaedic Residency

Scheduling

There is some flexibility in scheduling interview dates, but not in the time of day. You will receive interview invitations via e-mail. Check your e-mail frequently

once the November 1st deadline passes. Most programs offer only two interview dates, so it is important to respond to the invitation quickly in order to secure the desired date. Try to schedule interviews at programs you are not as interested in first to practice and build confidence. Most programs schedule interviews with large groups of candidates.

Preparation

Preparation is essential for a successful interview. Review your application and personal statement. **Be prepared to speak about your research experiences and on any inconsistency in your application** (i.e., time out from medical training). Perform a literature search on the department chairperson and attendings. A literature search will provide information about the program's strengths and research focus. Ascertain if any graduates from your medical school trained at that program and contact them for information and insights. Your orthopaedic mentor and AAOS Diversity Advisory Board members are additional resources.

Most programs ask similar questions. Think carefully about and be prepared to discuss what interests you about orthopaedics; what the field of orthopaedics involves; what aspects of their program are attractive to you; why you want to attend their particular program; and why you are a good match for their program. Formulate answers to the most commonly asked questions (see Questions: yours and theirs).

If you don't have a list of who will conduct the interview, ask the department secretary for one. This will not only help during the interview (i.e., literature search for publications and research interests, calling people by name), it will also help when writing post-interview notes and thank you letters.

Presentation

An orthopaedic interview requires professional dress. The best choice is a comfortable suit with no flashy accessories. Conservative dress will allow you to present yourself as a serious candidate. Male candidates should avoid earrings. Consider the weather. Bring boots for snow and an umbrella for rain. Women should pack extra stockings, and everyone should come prepared with a sewing repair kit. If you're flying, carry your interview clothes with you.

If you interview while on an externship at the same facility, do not run to the interview in scrubs as this shows disinterest and lack of earnestness about the program. Don't be caught off guard. **Prepare for an interview at an externship site as carefully and thoroughly as any other interview.** It's just as important.

Be prompt. If possible, check out the location and parking the previous day. If time precludes this, give yourself extra time to find the interview site. Consider splurging for a taxi or having a friend drop you off so you don't have to worry about parking. During the interview be honest, interested, and enthusiastic. Look people in the eye. Don't fidget. Avoid passive language or speech patterns showing hesitancy or uncertainty. Don't say, "I think I would make a valuable contribution to your program." Say, "I will make a valuable contribution to your program." Don't say, "This may not be what you are looking for, but my research at Johns Hopkins with Dr. Labyrinth gave me experience in this area." Say, "I can best respond to your question with a description of my Johns Hopkins research with Dr. Labyrinth." Be positive, direct, and confident about your abilities and attributes.

Practice interviewing with a friend, your mentor, or faculty advisors. Some programs tape or video record interviews so they can review them later in the process. If you are unaccustomed to being taped or video recorded, set up an opportunity to practice interviewing under these conditions. Practice tapes or videos can provide valuable presentation feedback.

The mechanics

Programs receive 200 to 500 applications per year and offer 50 to 75 interviews depending on the number of positions available. Most programs select four residents per year, although this varies from one to ten. Interviews are usually held from 8:00 am to 3:00 pm, beginning with a morning conference and sometimes ending with a group post-interview dinner. Many include lunch with the faculty or current residents. You will have 15 – 20 minute interviews with each of the program attendings. Most programs often include a resident in their interview lineup or have residents give a facility tour. If you are not given an

opportunity to talk with residents during your interview, seek them out during free time or once the interview is concluded to solicit their views on the program. Remember that residents usually contribute to the selection process: be circumspect.

It is important to talk to residents from each program either at dinner the night before the interview or during the interview day. They can provide you with valuable information about how the program actually functions. Most programs are proud of their residents and want to have as many of them available as possible to talk with applicants. Be cautious if no residents are around on interview day.

Questions: yours and theirs

Study the residency brochures and FRIEDA before the interview to familiarize yourself with the employment package. Consider obtaining the answers to the following questions prior to the interview (these and similar questions are NOT appropriate questions for you to ask during the interview itself):



- What is the salary?
- Is there life insurance?
- What type of health insurance is provided?
- Is there disability insurance?
- What is the vacation time?
- Is there maternity leave?
- Where do residents park?

Interviewers tend to ask similar questions. Before the interview, prepare and practice answers to the following list of commonly asked questions:

- Why did you choose this specialty?
- Why are you interested in this program?
- What are your goals?
- What are your strengths?
- What are your weaknesses?
- Are you interested in an academic career or private practice?
- Why should we pick you?
- What do you do in your spare time?
- Are you interested in research?
- Tell me about your research.
- Where else have you applied?
- How will you rank us?
- What was the most interesting case you were involved with?
- Present a case that you handled during medical school.
- What could you offer to this program?
- How do you rank in your class?
- Do you plan on doing a fellowship?
- Where do you see yourself in 10 years?
- What did you do during this time (if your vitae shows a hiatus in your training)?
- Are you prepared for the rigors of residency?
- Do you have any questions about this program?

Some interviewers ask questions with no obvious relation to medical training. These are usually “getting to know you” questions. Sometimes the question is based on a previous, and usually singular negative experience with a resident. Remain patient, and prepare and practice answers to the following list of “getting to know you” questions:

- Are you religious?

- What is the one event you are most proud of in your life?
- What are your hobbies?
- What do you think about house staff unionization?
- How would you redesign the health care system?
- How will you deal with the possibility of being sued?
- What was your most difficult situation in medical school?
- What was the last book you read that was not a medical book?
- What do you think of socialized medicine?

You may ask questions too. But try not to challenge or grill the interviewer, put the interviewer on the spot, or ask loaded or threatening questions. Ask questions to obtain valuable insights about the program and to show your interest. Avoid asking too many questions or you may appear disingenuous. Remain attentive so you don’t ask questions that were already addressed.

Consider asking the attendings some of the following questions:

- What do you look for in a candidate?
- How many people do you rank?
- How do your residents perform on the boards?
- How many hospitals participate in the program?
- Is there time and funding for conferences and meetings?
- What is your patient profile?
- Do residents perform surgery?
- Is this program changing? Why?
- What do the residents like most and least?
- What are the research opportunities?
- What is the scope of experience I can expect?
- What percentage of graduates enters fellowships?
- How is the training divided?
- What are the weaknesses of the program?
- When was the last accreditation visit? What were the results?
- Are there any outside rotations or joint residency activities?
- Is the chairperson staying?
- Do residents have time to read?
- What are the standard meetings/conferences?

Be cautious when asking the minority (ethnicity) - specific questions suggested in this section. It is usually best to direct these inquiries to sympathetic residents and, if possible, to a minority resident. Consider asking the residents some of the following questions.

- What is the mix of married and single residents?
- How many ethnic minority residents have been through the program?
- How many ethnic minority residents are in the present program?
- Do the residents socialize together or interact infrequently outside of the training environment?
- Do the residents live near the hospital or scattered at some distance away?
- What are the group's interests?
- How many residents are there?
- What is the call schedule like?
- What happens if someone is sick?
- Describe the faculty-resident relationships?
- What is the relationship between this program and other specialties?
- Has any house staff left the program? Why?

Consider and assess the following as part of your overall decision-making process:

- Do you like the city/suburb or rural setting?
- Do you want to train at an academic or non-academic program?
- Is research important to you – what are the opportunities available?
- What is the community like?
- What is the climate like?
- What kind of transportation is available?
- Is there access to theater, movies, concerts, sporting facilities, and outdoor activities?
- What are the individual call rooms like?
- What are the meals like?
- What is the library like?
- Are there adequate locker facilities for women in the operating rooms?
- Are there fitness facilities?
- If you are disabled, will you find or be able to arrange the support you need to succeed?

Add general and program-specific questions to these lists. Direct questions to the most appropriate people. Many candidates find that developing a chart of what they are looking for in a program (with aspects listed from most important to least important) helps the decision-making process. Write up your notes after each interview and evaluate the site according to your chart. Once all the interviews are completed, use the chart to help rank order your preferences.

Minority (ethnicity) based questions

Although the law prohibits discrimination on the basis of sex, race, religion, national origin, age, handicap, and, in some states, sexual orientation, questions about ethnicity are still asked. You are not required to answer these questions. **One way to view discriminatory questions is as an opportunity to evaluate the attitudes of the program toward minority candidates.**

You may choose to answer the question directly, or not at all, or ask if there is any program history that makes the question pertinent. Federal law does not prohibit such questions but does prohibit selection of residents based on the answers. If a program is persistent in such questions you may want to contact the Federal Equal Employment Opportunity Commission (EEOC) or the state agency that handles discrimination claims. There are several orthopaedic programs that have never hired a minority resident. Discriminatory practices do exist. Ethnicity based questions may be clue that this program is antagonistic to minority candidates, and you will want to consider this in your decision-making process.

Think about how you wish to handle ethnicity questions before the interview and prepare a response.

If you choose not to answer a discriminatory question, respond with a brief, direct statement: "That question is discriminatory, and I choose not to answer it," or an indirect statement: "That subject is a private one and does not affect my candidacy for your program."

What residency programs are seeking

Program chairs want to teach residents how to be successful orthopaedic surgeons. The programs want students who will work hard and who can be taught easily. Desirable attributes include: high energy level, positive attitude, ability to work effectively with others, and good communication skills.

Post interview

After each interview, jot down your impressions as soon as possible. Don't put it off. It's amazing how quickly one interview can become confused with the next. The return plane flight is an excellent time to complete a chart or checklist and reflect on the experience. Ranking the programs when the interview process is completed will be an easier task if you track your interview experiences immediately.

Match day

In the United States, all American Academy of Orthopaedic Surgeons (AAOS) and American Board of Orthopaedic Surgeons (ABOS) certified programs participate in the National Resident Matching Program (NRMP). The medical student ranks as many programs as desired in order of preference. The programs rank the applicants. Applicants and residency programs are matched by computer.

In February after your interviews, submit your "Rank Order List" on the NRMP website, indicating your residency choices in order of preference. Sites and applicants are honor bound not to make verbal or written contracts or commitments prior to submission of Rank Order Lists. Indicating your level of interest, however, is not precluded. On "Match Day" (mid-March) match results are posted, and programs and applicants are "matched" according to mutual rankings.

Occasionally, an applicant will not receive a match. Individuals who do not match will usually be notified

a day prior to the match, so they can 'scramble' or find open spots on match day. Due to heavy competition for orthopaedic residency positions, orthopaedic programs rarely have an empty position once the match is made. Your medical school dean, advisor or an orthopaedic faculty member may be able to assist with finding an unfilled spot, either in orthopaedics or an alternative field of your choice. If you are not a strong candidate for an orthopaedic residency, it would be prudent to rank and interview for programs outside of orthopaedics, in order to avoid the unpredictability of the 'scramble'. General surgery is considered a good back-up option.

Internet Resources

ACGME

Accredited Residency Programs
www.acgme.org

AMA

Graduate Medical Education Directory
www.residencyweb.com

NRMP

National Resident Match Program
www.nrmp.org

FRIEDA Online

Fellowship and Residency Electronic Interactive
Database Access
www.ama-assn.org