

Considerations for the evaluation and treatment of joint hypermobility

General recommendations

- Consider being involved with a local support group (<https://www.facebook.com/ashevilleEDS/>)
- Additional resources for patients and providers:
 - 'The Joint Hypermobility Handbook' by Brad Tinkle, 2010 (available online)
 - The EDS Society (www.ehlers-danlos.com)
 - Hypermobility Happy Hour podcast (www.hypermobilityhappyhour.com)
 - GeneReviews on hEDS (<https://www.ncbi.nlm.nih.gov/books/NBK1279/>)
 - ECHO project through the EDS Society (<https://www.ehlers-danlos.com/echo/>)
 - Dr. Pradeep Chopra's lectures on EDS pain and symptom management (<https://painri.com/helpful-resources/>)
 - EDS Guide for Parents/Educators (<https://ehlers-danlos.com/wp-content/uploads/Educator-Parent-Guide-2016.pdf>)

For pain and joint symptoms

- Referral to physical therapy for joint stabilization; orthopedics evaluation as needed
- Medication: Ibuprofen/Tylenol as needed
- Magnesium (Epsom salt baths, transdermal oil/cream, oral)
- Vitamin C (500mg-2g) can be used for bruising
- Low-impact activities: swimming, biking, walking, golf, elliptical machine, rowing, etc
- Braces on various joint as needed (e.g., fingers, knees), arch support for flat feet (shoes, inserts); cushions
- Consider a referral for cognitive behavioral therapy for pain management
- For school-aged children: modifications for school as needed (e.g., PE, increased time between classes, use of an elevator, etc)
- 'Managing Chronic Pain: A Cognitive-Behavioral Therapy Approach Workbook (Treatments That Work)' by John Otis (available online)
- Activity pacing (<https://painhealth.csse.uwa.edu.au/pain-module/pacing-and-goal-setting/>)

For symptoms of autonomic dysfunction

- Postural orthostatic tachycardia syndrome: increased water and salt intake, compression stockings, walking, cardiology evaluation as needed for additional management
- Abdominal symptoms: small frequent meals, diets involving less inflammatory foods, trial of reducing dairy, gluten, sugars, etc; consider a referral to gastroenterology or nutritionist to ensure a healthy diet that minimally induces GI symptoms and inflammation
- Optimize sleep quality (consider the book 'Sleep Smarter' by Shawn Stevenson)
- Other treatments to consider: massage therapy/bodywork (trigger point therapy, craniosacral, acupuncture, etc), biofeedback, meditation/breathing exercises, increasing vagal tone (humming, singing, speaking, cold water to the face, exercise - walking, meditation, massage, appropriate relationships/socializing)

For symptoms of mast cell activation

- Antihistamines daily or as needed for hives
- Consider referral to allergy/immunology for further work up

Genetic Evaluation/Testing

- If a patient desires genetic testing for the types of EDS that have a known gene, they can initiate this themselves through the Invitae laboratory (www.invitae.com)
- Additional referrals could be to Dr. Candace Ireton at MAHEC, UNC-Chapel Adult Genetics Clinic (<https://www.med.unc.edu/genetics/for-patients-and-providers/unc-adult-genetics-clinic/>), Dr. Alan Spanos (<https://alanspanosmd.com/>), and the Atwal clinic (www.atwalclinic.com)