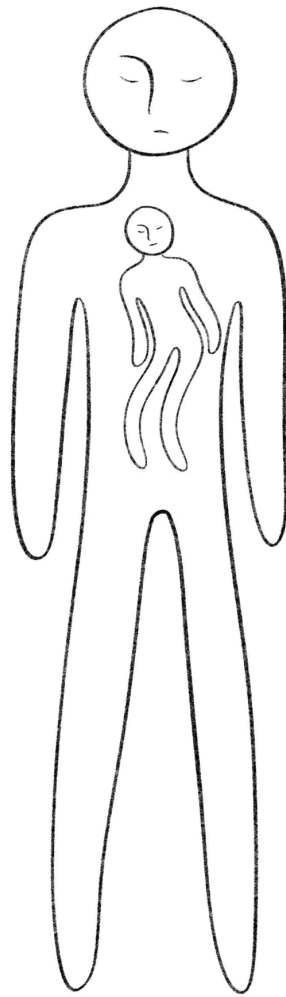


**a s y m m e t r i c a l**  
***p o n d e r i n g s***

*p o e m s   o n   s c o l i o s i s*



**SOPHIA   SURTI**

illustrated by sadie belle

## Introduction

Welcome, I'm so happy you're here! My name is Sophia (she/they) and I'm a poet, musician, and naturalist. This collection of poems is the first of my writing I am sharing publicly. Even with a lifelong penchant for language, I've often confined my identity to my love for music. I am now noticing how interconnected these art forms are, and finding I can do both. One impetus for sharing these poems has been my career journey, as I am a music therapy student pursuing a career in creative arts therapy in the hospital. I'm privileged to support the wellbeing of children and families in difficult situations and offer a sense of control and choice, using my experiences and musical skills I worked my whole life to develop. If music is my heart, writing is my soul.

If you know me in real life, you know I'm fairly reserved about certain parts of my life. I thought, for a change, I'd really be an "open book," so if you enjoy surprises, read on! I note that you may know me by my paternal grandfather's last name, which you are welcome to keep using outside the context of my writing. The last name I use here is my maternal grandmother's maiden name. In this creative context, I want to use a name that reflects the complexity of my mixed ethnic identity and honors my maternal grandmother, who used to write poetry for herself.

"asymmetrical ponderings" is to commemorate 10 years in titanium. I underwent spinal fusion surgery to correct severe adolescent idiopathic scoliosis on August 17, 2016, a long surgery in which two titanium rods and 16 screws were fixed to my spine. During this time, life felt out of my control. My experience with scoliosis left scars both visible and invisible, and I don't think my younger self would recognize me now.

In sharing these poems, I wanted to explore an under-discussed topic of scoliosis and its emotional impact on patients and families. While my doctors provided the best physical support, the only treatment options presented to my family were bracing and surgery, and no alternatives such as physical therapy or the Schroth method were discussed. I recall the surgery being quite hard on my parents, and the bracing being especially difficult for me. With a peacekeeping personality, I took on others' stress and pushed through pain with a happy face, often to the detriment of my emotional wellbeing. Unfortunately, neither I nor my family was going to ask for help; the misguided notion that scoliosis was "fixable" through surgery, and not a chronic illness with lifelong emotional or physical consequences, persisted, and we believed it would all

be over soon. While modern medicine has helped me greatly, I know that non-physical interventions can also support physical healing, especially as a music therapy student. It is deeply troubling for me to see progressions in physical care used as a reason to reject the idea of a bidirectional mind-body connection in relation to physical illnesses. I know that the intensity of my childhood, combined with my sensitive temperament, took a toll on my growing body prior to my scoliosis diagnosis; I also know as an adolescent how deeply my diagnosis, bracing, and surgery affected my mental health.

Due to a lack of research around the psychological consequences of scoliosis and its treatment, my scoliosis diagnosis and treatment (2012–2018) did not prompt the offering of mental or emotional health resources or support groups to me or my family. Strong efforts are now being made to educate families about scoliosis. The hospital where I received treatment conducted research revealing that psychological impacts can persist long after scoliosis surgery. A lot more work is still to be done—in my experience, discussions of psychological challenges in the medical setting remain stigmatized. If I had had even an inch of non-physical support freely offered during my time in the hospital, I believe it would have made an immensely positive impact on my recovering body. Art or music therapy would have given me a sense of agency and made my situation easier to process. I advocate that a scoliosis diagnosis should automatically prompt referrals to psychologically supportive measures for children and families alongside physical treatment of the condition.

As a disclaimer, these poems do not constitute medical advice. Please seek guidance from your physician or treatment team, and research for yourself what treatment options may be best for you. A brief content warning: these poems include themes of non-suicidal self injury, physical and emotional trauma, suicidal ideation, and surgery descriptions. The poems you're about to read come from emotions I long handled alone. I hope by offering a kaleidoscope of my feelings around my scoliosis someone else may find they are not alone in their experience. Thank you from my heart and soul for being here. May you keep good thoughts, good words & good deeds.

With love,

Sophia Surti

Los Angeles, 2026

dedication

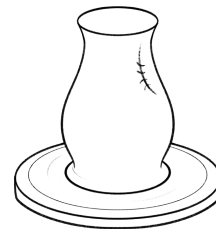
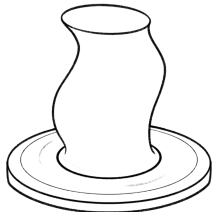
*to all my friends, family, and former strangers who support my work,  
and to all those with invisible disabilities: this book is for you*

## **Table of Contents**

|                                  |    |
|----------------------------------|----|
| the artist                       | 1  |
| august 17, 2016                  | 2  |
| crooked                          | 3  |
| not a child prodigy              | 4  |
| rescuer                          | 5  |
| destroyer                        | 6  |
| martyr                           | 8  |
| braced body                      | 9  |
| dangers of a cheery disposition  | 11 |
| quiet destruction                | 13 |
| bunk tears                       | 15 |
| ableism                          | 16 |
| curvy                            | 18 |
| shark bite                       | 19 |
| acts of resistance               | 20 |
| scoliosis is biopsychosocial     | 21 |
| letter to my teenage self        | 26 |
| scoliosis resources & references | 30 |

## the artist

cotton gown,  
crunchy paper  
covering hair,  
i laugh myself to sleep,  
now surgical clay.  
while mind sleeps,  
does body remember?  
recollections appear  
like medical teledrama.  
mind requests  
medical records  
to remind itself  
what body knows:  
the artist sliced  
a slinky, longitudinal  
line down mid-back  
of breathing clay,  
across ten vertebrae,  
full moons  
cut to waxing gibbouses,  
harvesting,  
reshaping each process.  
metal on bone  
bone on bone  
metal on metal  
metal on metal on metal on bone  
six hours, ten vertebrae later,  
the artist reforms a spine,  
ancient sculpture  
applied to living medium  
modern medicine:  
human alters human  
with god-like access.  
clay blinks awake  
stapled, sewn, taped  
permanently altered,  
then begins fusion.  
fire blazes in kiln  
awaiting body.  
mind vigilant, skeptical,  
body overrides mind,  
trusts the artist  
advances to kiln,  
fusing into a new shape,  
still remembering its original form



**august 17, 2016**

beep, beep.

BEEEEEP.

Eyes blink open

to see nurses and parents above me,  
handing me an orange popsicle.

I savor it, smile

GRATEFUL to be alive.

Nearly unbearable to speak,

I cough out frog-like "*hello*"

Can I still sing?

Melting popsicle in sticky hand,  
electrical wires who knows where,  
nose plugged with oxygen cannulae,  
a big inhale through my mouth,

I croak out pieces of Puccini's *Tosca*:

*Vissi d'arte, vissi d'amore! I lived for art! I lived for love!*

I am opera diva Maria Callas

Spirited orange syrup saturates my hospital gown.

Oh, I'm alive, I'm alive, I'm alive.

## crooked

look at the modern medical definition of  
*idiopathic scoliosis*\*:

*“spinal curvature with unknown cause”*

then break down the Greek and Latin etymology:

*idio-* from *idios*: “one’s own or private”

*-path*: “experience, undergo, suffer”

*skoliós-*: “bent, crooked, askew, or devious”

*-osis*: “a condition”.

put those roots together and see  
what *idiopathic scoliosis* actually means:

***“a crooked condition suffered on one’s own”***

why do we use these words to describe a childhood illness?

why do we imply our children are devious?

I was “obedient,” “good,” I sang *“be kind to your parents”*

in the 2nd grade talent show, and still,

they called me crooked.

language matters



\*<https://www.merriam-webster.com/dictionary/scoliosis>

## **not a child prodigy**

scratchy carpet rubs my shins  
shoulder to shoulder with kindergarten classmates  
internal anxiety  
trying to listen to what teacher says  
mind drifts to last month  
a weekend performing solo for audiences,  
i ran off the stage mid-song.  
now i'm back in school like nothing happened  
what if i can't live up to expectations of me?  
oh no please don't cough on me  
i bite my nails  
red lines around each appear  
until 10 bloody nailbeds  
teacher notices, bandages  
later i repeat kindergarten at a private school  
finish all my reading words first from the class  
i couldn't forget  
i had to be smart to survive

**rescuer**

in my childhood bedroom falling asleep,  
listening to the freight train of my life's  
dark and quiet rumblings,  
i notice the train hasn't stopped for a while. *i'm trapped.*  
my 12 year old brows furrow:  
i wonder what my spine is trying to tell me by twisting.

i roll over, curl legs to chest  
hip pushing brace downward,  
comfortable confinement.  
twisting offers relief, moments of fresh air,  
respite from contorting myself in ballet,  
moments when health becomes  
more important than being perfect.  
yet activities continue with two hour daily commute:  
religious schooling to rehearsals to piano lessons to music theory to concerts.  
constantly moving wears me down  
i hold onto the brace for dear life.

perhaps this curve is my rescuer,  
gently pulling me out the train's window.  
the train slows down long enough for me to consider getting off  
my trophy for "most well-mannered" from cotillion watches me.  
*keep moving*, i nudge myself back on.  
*you don't want to disappoint everyone.*

so through tendrils of labyrinthine vertebrae,  
the dutiful spine tucks away my secret doubts,  
which, slowly covering one another,  
starve themselves of light,

yearning to get off the train  
and stand still  
in the sun.

## **destroyer**

*battle between 200 years of emotions and an 11-year-old body*

Your ancestors refused to listen to my ancestors.  
I told your ancestors they needed rest, to get off the train,  
to take care of themselves, to understand what happened to them.  
They stayed on, rushing, didn't heed my warnings,  
said they'd deal with it later. Now they're gone. You're here.  
I must begin this war on behalf of all the bodies who created you.  
I come to help you release the WEIGHT of their choices,  
choices which, now, you are trapped inside.  
I curve you, until you  
*release the tension.*

**It causes me pain.  
It bends my spine further and further.  
Doctor says it'll soon start pushing my lungs.  
Why is this happening to me?**

It's not your fault. Somehow you're the cosigner for your ancestors' debts.  
Doctors can't pinpoint where I end and where you begin.  
I never wanted to live in your body.  
I need to push these emotions out; it is long overdue.  
I'm sorry if I hurt you in the process.

*release the tension.*

**Doctors want to control it by caging it.  
Why must I be caged with it?  
They give me no choice.  
I have to wear this brace 20 hours a day.  
I hope I get used to it.**

Don't you DARE make me mad by crushing me further.  
I'll slow down over the next two years so it looks like you're done growing.  
Then I bring in my henchman. Watch the compensatory curve double my power.

***Release the tension* NOW or I break you.**

**They said I'm done growing. No more cage!  
They said they'll see me in a year...**

I know it's addictive for you, this pushing.  
you sit with one leg up, overstretching,

working with me, twisting with me, because it feels good.  
I know you; I've been with you over half your life.  
I'm not done with you. I fool you. I bend you 20 degrees more.

**What the FUCK! I spent 2 years in a cage to  
avoid surgery, they said I was done  
growing, they told me I was free, now  
the curve progressed, and I still have to  
have surgery????**

...

**The surgery worked. I hope this is over soon.**

...

**Rough recovery, but I'm in less pain now!**

Oh, now you're going to cage me from inside?  
Ha! Just wait! Watch me bend titanium rods.  
You're out of options! *I'm driving the train now.*  
From now on, I'll send numbness and burning pain  
down your shoulder whenever you sit or stand too long.  
Then you'll have to listen.

**It's been 10 years since the surgery, and I've  
had numb, tingling pain for a few years.  
I can't believe the rods are actually bent.  
I give up! What are you telling me, curve?!**

Have you considered the possibility I am not the enemy?  
Underneath, I am the loneliness, shame, trauma  
of those who came before you, so I push.  
But my pushing is only a symptom of a problem.  
I'm giving you an opportunity to work with me instead of against me.  
So accept me. Understand where I'm coming from.

None of this was your fault.  
It wasn't about some backpack or posture.  
Nothing you or doctors physically did  
could have stopped me, only slowed my progress.  
Even if I am a destroyer, you are not crooked.  
Time may heal all wounds, but time without action destroys.  
It's on you now to act. Let these emotions go.

## **martyr**

blessed are the eldest children,  
for they shall protect their siblings from harm

blessed are the sensitive  
for they shall feel every rainstorm and superbloom

blessed are they with curved spines,  
for they shall tell stories their ancestors couldn't

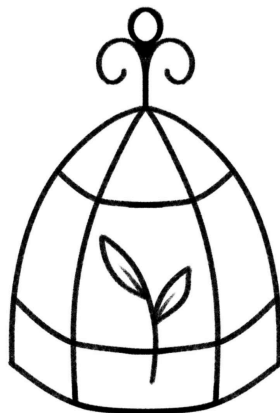
blessed are the braced  
for they shall endure low body confidence for the ideal of a straight spine

blessed are they with chronic illness  
for they shall battle on behalf of bodies resisting themselves

blessed are the mentally ill  
for they shall know truths the world turns a blind eye to

blessed are the open-minded  
for they shall be a window into civil harmony

blessed are they who speak truth  
for they shall find peace



## **braced body**

at my elementary school library,  
routine scoliosis checks are done in 2012  
(no longer mandated in California schools due to funding cuts)  
my curve is discovered.  
to children's hospital I go for treatment  
where bracing is presented as the only option  
to prevent curve progression and vital organ damage, or surgery.  
I'm not referred to physical therapy.

I visit the office of a child actor's father, a prosthetics specialist,  
where I don skin-tight material  
and am restrained to a glass table for measurement  
"should we leave her on the table?" he jokes to my family  
a Boston brace with purple cheetah print is custom-made  
I try it weeks later, pulling two velcro straps  
to tighten the plastic shell around my torso  
I'm told to wear it 20 hours a day until I "stop growing"  
I'm not referred to physical therapy.

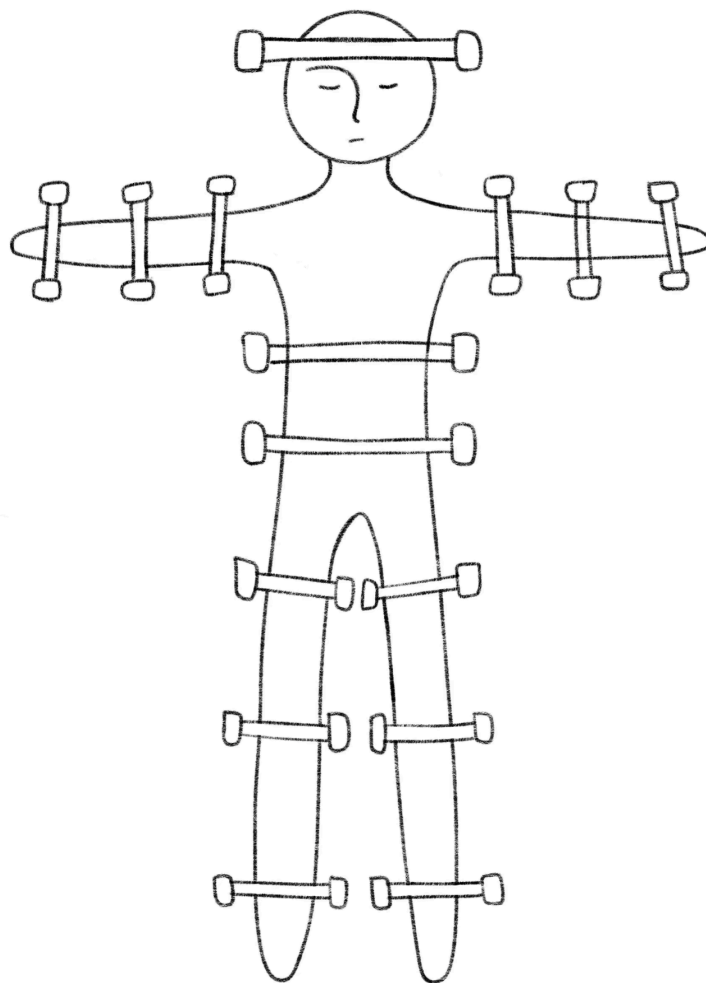
starting with feelings of extreme discomfort,  
I become more comfortable within its confines than outside it.  
then I lose my core strength,  
and weakness follows when unbraced.  
I feel caged in my body.  
thinking my body was gross  
wasn't helped by the brace, now a shell to hide in.  
I'm not referred to physical therapy.

bracing for "20 hours a day", I run from  
uniformed school to 60mph in a car for hours a day  
to exhausted sleep, not enough.  
unbraced, "4 hours a day", I play team soccer,  
sing concerts, act in shows,  
awaiting the velcro scratch of relief  
when I take the brace off after long drives,  
exit the car in full uniform to sing,  
and pull it back on for the drive home.  
often more than 4 hours unbraced,  
but I don't feel I have a choice  
I'm not referred to physical therapy.

After 2 years of bracing, it's determined my bones are skeletally mature,  
my curve is unlikely to progress further, and I am weaned off the brace.

I'm told the brace is smelly, and it's tossed in the trash.

**I'm not referred to physical therapy,  
my unbraced curve isn't monitored for a year,  
it increases 20 degrees, and surgery is the only recommendation.**



## dangers of a cheery disposition

looking back on how i got to surgery,  
you see biopsychosocial indications  
that something different than bones is awry:

i approach each doctor's appointment  
and discussion of my scoliosis  
with a cheery, upbeat disposition,  
not revealing how it wears on me,  
*"a well-nourished female in no acute distress"*.

i have "rock-hard abs," i joke with peers,  
knocking my plastic stomach for their amusement  
in my school uniform, tucked in polo shirt and red plaid skirt  
over the brace, hiding it, following uniform rules.

i take trips to the bathroom before and  
after physical education class twice a week  
to unbrace in privacy.  
i feel self-conscious carrying it outside,  
revealing my non-conformity.

i tire of separate trips,  
of feeling disruptive, reminding teachers  
to excuse me from class 5 minutes early.  
i stop self-advocating, instead,  
i follow my class to P.E., sit on the blue metal benches with backpacks,  
lift my shirt, and *scritchhhh*, the velcro comes off.  
i pull out a purple cheetah from under my shirt.  
i feel stared at, perhaps only imagined judgment,  
but my hypersensitivity is triggered.

sick of feeling different and pretending i am okay.  
peers see me teary-eyed at the ends of P.E. days.  
some ask if i'm okay, then regret it when  
it triggers full panic attacks,  
now a regular occurrence for me after school,  
some call me "cry baby"

disappointment lack of agency in treatment options physical stress hating my  
asymmetrical body frustration suffocating schedule i feel no control over exhaustion  
turns into depression, anxiety, panic

i wipe my tears  
get in a second uniform  
sit in a car for an hour  
go to choir rehearsal  
sing at the hollywood bowl  
learn about secondary dominants and Italian augmented 6th chords  
perform at galas, gracious with esteemed guests  
quiet and polite around parents' friends  
"seen and not heard"

a teachers' favorite, though they note i could participate more in class,  
i hope my quiet excellence will cancel the emotional pain  
i still brace 20 hours a day

## quiet destruction

finish line keeps moving, no respite.  
life is a marathon i've been treating like a sprint  
i can't stop moving no matter how hard i try to slow down  
internally, i break. physically and emotionally caged,  
i prick my fingers with safety pins in secret.  
i can't share my struggles with parents who do so much for me,  
why would i be ungrateful?  
tears stain my journal. i keep bracing.

after a year, i can't hold it together anymore  
i quietly act out.  
a gift for an older friend who doesn't go to my school,  
i write sexual fanfiction, well-researched writing,  
knowing more than i need at 12 about anatomy.  
i'm proud of it and send it individually  
to a few close friends from school,  
who pass it on to all my classmates.  
i don't express the deep betrayal i feel toward them  
because if they don't respond well, who will be my friends?  
i say nothing and feel lonelier than ever  
i'm bullied for it, and middle school boys  
call me "writer of porn"  
they say "she probably wrote it naked"  
one classmate, who i called a friend, relays to me  
that some boy said "everyone hates sophia, how could you not,"  
not refuting it, and i wish i could forget that comment.  
when parents run late to school pickup, other  
parents and teachers take the opportunity  
to give me dirty looks and whisper about me,  
the devious child corrupting their innocent children.  
but i am an innocent child too.  
i don't want to be here anymore.  
i lose trust in others. i keep bracing.

when i'm suspended from my catholic middle school,  
the principal says, "it's quite good. you should write more,  
but we have to suspend you." i sit in the school office for 3 days  
doing homework and penance. i later learn legal action  
was implied against me, suspension considered a gracious alternative,  
as i am shamed and punished at home.

i stop writing. i keep bracing.

i meet a bad therapist who reinforces the shame, saying  
"so... i heard you wrote a...racy...story. why?"  
learning at 12 what racy means. one day i'm pulled  
from school early before my long commute to music theory class  
so we still have time to go where we're going, unknown destination.  
when we arrive at the police station, i am warned of the internet's dangers.  
i stay quiet. i keep bracing.

i feel like i broke the law and have to be punished.  
completely trapped in my life and brace.  
one night up late, sitting on the floor,  
organizing jewelry, i overhear a conversation:  
"i don't understand why she did this or where she learned this"

i can't handle what i'm going through. i need more support.  
but it's all about other people.  
i don't get to feel any way about it.

my curve slowly progresses 10°, then stops awhile.  
doctors say i'm done growing, it's unlikely the curve will progress,  
and i no longer need to brace.  
they'll see me back in a year.  
relief, perhaps too good to be true, but  
i assume doctors know what they're doing.  
i trust them. i stop bracing.

i didn't know to do anything differently,  
but part of me was lost in the destruction.

## **bunk tears**

an evening at summer choir camp  
i learn from an email that the artist, surgeon,  
doctor who treated me over four years  
passed away from cancer, just two years after my surgery  
leaving behind wife, son, & unborn daughter\*  
a pain in my chest arises for the family  
eerie loss settles  
when i realize never again will i  
speak to my spine's sculptor  
tears flow under the bunk bed  
knowing disability doesn't discriminate

\*link to a Gofundme for the education of surgeon's children: <https://www.gofundme.com/f/pauldchoi>

## **ableism**

disability itself may not discriminate,  
but those whose job is to support disabled folks sure have.

when trouble brewed after I disclosed my scoliosis,  
I lost faith in those who preached inclusion  
but weaponized students' self-disclosure.

a suggestion that my scoliosis would prevent me  
from performing a function of my future career  
was followed by a recommendation to leave the program.  
fire started in me and boiled my blood

they forgot I am made of titanium  
throwing their weight at me,  
they didn't realize I'm here to stay.  
I took feedback and adapted my approach  
meeting myself like I meet clients

I didn't understand internalized ableism until  
I needed something I wouldn't let myself have.  
allowing it, I'm now 25 years old with shower chair  
happy to be an industrial-grade human  
who supports clients as well as anyone able-bodied

higher biases none of my concern, I pushed on,  
involving even higher powers, learning law  
and how to protect myself  
the truth is on my side

no one should be treated like this,  
but I'm persistent and have faith in myself to make it  
if I continue not to be moved by their pushing,  
their own friction will tear the fabric of their system.



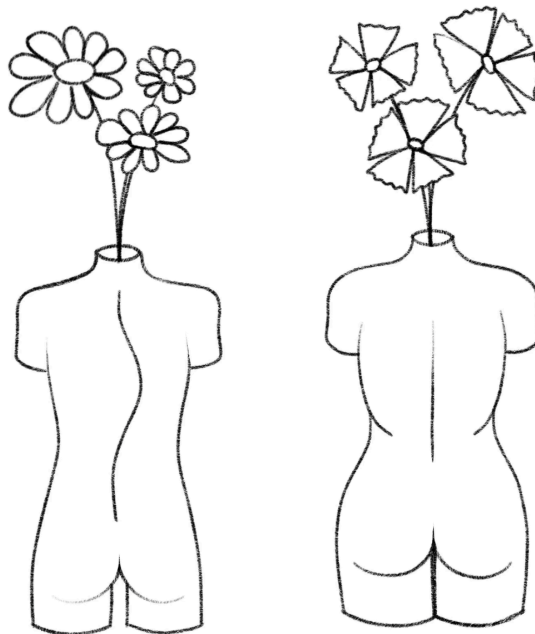
## curvy

adults don't realize how deeply their words  
may affect children's inner lives.  
growing up, we both had curves  
for which each of us were scrutinized

my scoliometer reading was unacceptable,  
her body mass index too high  
after bracing, my number was deemed rescueable  
while hers sustained a judgmental eye

disparaging comments made to the girl so lovely,  
demanding she try to be healthy and thin like me.  
if I was so healthy, why was my spine in recovery?  
even as children, women's bodies can't just be free

judgmental statements should not be forgiven  
after superficially discounting a person's heart and mind  
a body's not something to aspire to—it's something to live in.  
and it's beautiful to be curvy of any kind.



## shark bite

a visitor asks how i got the long scar down my back  
“shark bite”, i say, amused at their face agasp,  
before explaining my surgery to them

some people don't deserve your story,  
but some REALLY don't deserve  
to be “protected” from your experiences.  
so i wear open backed shirts when i want  
and no longer hide myself for others' comfort.

when i presented 8 years after surgery  
with persistent single-sided shoulder pain  
many doctors didn't believe the  
pain was related to scoliosis.  
but how would they know it's not related to  
scoliosis if they didn't know what caused the pain or my scoliosis?

i wonder if a man would be more carefully listened to  
medical misogyny is real, and some doctors do have blinders on.  
i voluntarily go for medical procedures to  
try to identify the cause of the pain  
i'm zapped on my arms, and they find nothing  
from my own research, i believe my pain is  
caused by an issue in the neck in vertebrae  
that connect to the arms.  
i finally get an x-ray, showing mild arthritis  
or disc degeneration in the neck  
no surprise to me

i let my shark bite speak for itself  
i rock my scar.  
i was hiding in a shell for so long  
now look at me, world! i survived the shark!

## **acts of resistance**

with my resistance band, i conquer all  
i do the same exercises as many older adults:  
gentle ways to subtly strengthen shoulders  
and back, or stretch compressed muscles  
to compensate for ways the body has developed asymmetrically.  
physical therapy has helped me a decade after surgery.  
i knew i needed PT when i had cervical radiculopathy  
recurring pins and needles along my shoulderblade  
finally i find a PT who by serendipity has scoliosis herself  
who couldn't believe i was prescribed only a couple sessions  
of physical therapy after my surgery.  
a decade after fusion  
still with an inclination to curve, to twist  
i work on pulls, pushes, core exercises  
so repetitive you forget it works  
scoliosis has a tendency to compress  
so i expand  
the rods have bent,  
i still have pain  
and though i am fused,  
my body still has scoliosis  
but small acts of resistance make a difference

## **scoliosis is biopsychosocial**

I believe my doctor didn't make  
a mistake in measuring my bone age  
when he stopped prescribing my brace.  
I believe my bones *were* skeletally mature,  
my spine *was* done growing, and no curve  
*should* have happened when it did—  
if bone immaturity was the reason for my scoliosis.

20 degrees of continuing curvature signaled that my bones  
were *not* the only element involved in creating my scoliosis.  
perhaps they were responding to a different asymmetry,  
not involved in creating the curve at all.

the fact that my curve grew significantly  
after my bone age was found to reach maturity  
is the reason I know scoliosis is more than a bone issue.  
my spinal curve had an initiator somewhere else in my body or brain:  
perhaps stress, perhaps an undetected asymmetry in the brain,  
perhaps trauma, perhaps a combination, perhaps something else.  
but a respite from the brace allowed my spine to curve  
under no monitoring, despite apparent bone maturity.

outside of a measurement error or negligence,  
which I do not feel was the case based on thorough treatment to this point,  
a biopsychosocial model of scoliosis is the explanation I offer.

science doesn't make definitive statements about what causes scoliosis  
because no overarching cause has yet been identified.

but treatment progress has been made  
in just one dimension, treatment of the bones directly.  
the Boston brace design came a long way from  
the chin-high Milwaukee brace,  
a long way from being bed-bound in a full body cast.

but what if a multidimensional treatment approach is more effective?  
new research places scoliosis in a context larger than just bones:

**research indicates correlations between scoliosis and:**

depression

sensory dysregulation

spatial awareness deficits

balance issues

visual impairment

## atypical brain lateralization

chronic pain

poor body image

anxiety

**psychological correlations with scoliosis:**

<sup>1</sup> during adolescence, a diagnosis of scoliosis is associated with an *immediate* drop in self-esteem and mental health. residual depression often remains in adolescents with severe spinal curves. researchers advocate that assessment for mental health issues following a scoliosis diagnosis becomes standard practice.

<sup>2</sup> *over half* of pediatric scoliosis patients present with a psychological comorbidity.

<sup>3</sup> compared to their peers, mental health concerns occur more frequently in scoliosis patients, especially: eating disorders in younger teenagers, mood disorders in older teenagers, & anxiety disorders.

<sup>4</sup> \*concerns remain about the transparency, methodology, and reproducibility of studies on the psychological effects of scoliosis, and more research is needed.

\*we are stuck on scoliosis being a bone issue, so psychological studies are underfunded.

<sup>5</sup> clinically significant emotional and psychological distress is noted in 1/3 of adolescent scoliosis patients.

**psychosocial correlations with scoliosis:**

<sup>6</sup> family-based group interventions are found to enhance psychosocial wellbeing and resilience in adolescent scoliosis patients and their families.

<sup>7</sup> female scoliosis patients report poorer health-related quality of life than male patients.

<sup>8</sup> adolescent scoliosis patients who are treated with a brace report higher levels than their peers of sexual distress and difficulties in body image.

<sup>†</sup>(my experience supports this research. see “quiet destruction”)

<sup>9</sup> 50–69% of surgical adolescent scoliosis patients are at risk for psychosocial difficulties at 2-year follow up.

<sup>10</sup> support systems from at least two sources foster positive self-image during treatment for scoliosis.

### **biological (non-skeletal) correlations with scoliosis:**

<sup>11</sup> \*“atypical brain lateralization” has been observed in adolescent scoliosis patients, potentially disturbing “body schema” and adding to “neurodevelopmental features” evident in scoliosis. researchers recommend interdisciplinary investigation and approaches focused on altering “stress-related mechanisms” and “promoting brain neuroplasticity”.  
*\*if someone can explain this theory to me, I’m all ears :)*

<sup>12</sup> † in scoliosis patients, a relationship exists between back pain in adulthood and self-image and mental health in adolescents. one study found the development of back pain was largely determined by one’s psychological makeup, suggesting that mental health issues may aggravate back pain.

*†see source 23 on last page about pain theories*

<sup>13</sup> scoliosis patients consistently exhibit “difficulties in multi-sensory integration”.

<sup>14</sup> in scoliosis patients, in addition to biomechanical spinal differences, “anatomical, biomechanical, and kinesiological changes” have been observed in muscle components of the eye.

we know scoliosis patients share biopsychosocial characteristics,  
so we must focus future work on biopsychosocial treatments.  
research and clinical practice will take its time  
making careful steps forward.  
until then, based on my lived experience,  
i know scoliosis is not only a bone issue.  
in cause and in effect,  
scoliosis is a biopsychosocial condition.

## Sources

- <sup>1</sup> Kaliterna, P., Buljan, I., Šegvić, I., Čimić, M., & Žuljević, M. F. (2026). The Association of Receiving a Diagnosis of Idiopathic Scoliosis with the Self-Esteem and Mental Health of Pediatric Patients: A Cohort Study. *Children (Basel, Switzerland)*, 13(7), 946. <https://doi.org/10.3390/children13070946>
- <sup>2</sup> Chen, J.W., Koester, S.W., Liles, C. *et al.* Evaluating the prevalence of psychiatric comorbidities associated with pediatric scoliosis utilizing ResearchMatch. *Spine Deform* 12, 1583–1593 (2024). <https://doi.org/10.1007/s43390-024-00926-8>
- <sup>3</sup> Tanabe, Y., Aso, S., Matsui, H., & Yasunaga, H. (2026). Association between adolescent idiopathic scoliosis and mental health concerns: a retrospective cohort study using a Japanese health insurance claims database. *Spine deformity*, <https://doi.org/10.1007/s43390-026-01515-7>
- <sup>4</sup> Kaliterna, P., Žuljević, M. F., Marušić, A., & Buljan, I. (2025). Completeness of Reporting and Intervention Description in Articles on Psychological Interventions for Pediatric Patients with Adolescent Idiopathic Scoliosis: A Meta-Research Study. *Healthcare (Basel, Switzerland)*, 13(22), 2872 <https://doi.org/10.3390/healthcare13222872>
- <sup>5</sup> Sanders, A. E., Andras, L. M., Iantorno, S. E., Hamilton, A., Choi, P. D., & Skaggs, D. L. (2018). Clinically Significant Psychological and Emotional Distress in 32% of Adolescent Idiopathic Scoliosis Patients. *Spine deformity*, 6(4), 435–440. <https://doi.org/10.1016/j.jspd.2017.12.014>
- <sup>6</sup> Cheung, M-C., Leung, Y-M., Leung, K-T., Shi, Y., Cheung, J. P. Y., Law, Jerry, & Yip, Joanne (2026). Family-based group intervention revitalizes the psychosocial well-being of adolescents with scoliosis receiving brace treatment. *Child and Adolescent Social Work Journal*. <https://doi.org/10.1007/s10560-026-01135-0>
- <sup>7</sup> Shi, Z., Mao, Z., Xue, S., Chen, G., & Li, S. (2023). What is the relationship between health-related quality of life among scoliosis patients and their caregiver burden? A cross-sectional study in China. *BMC psychology*, 11(1), 346. <https://doi.org/10.1186/s40359-023-01375-0>
- <sup>8</sup> Ashkar, I., El Rayes, D., Habib, H., Zantout, R. Z., Muscogliati, E., Nocun, W., Muscogliati, R., Badhe, N., Quraishi, N. A., Salem, K., & Najjar, E. (2026). Beyond the curve: sexual and psychological health after adolescent idiopathic scoliosis treatment. *Spine deformity*, 14(3), 741–753. <https://doi.org/10.1007/s43390-025-01259-w>

- <sup>9</sup> Jalloh, H., Andras, L. M., Sanders, A., Iantorno, S., Hamilton, A., Choi, P. D., & Skaggs, D. L. (2023). Adolescent idiopathic scoliosis patients treated with bracing, surgery, or observation showed no difference in behavioral and emotional function over a 2-year period. *Medicine*, 102(3), e32610. <https://doi.org/10.1097/MD.00000000000032610>
- <sup>10</sup> Glahn Castille, M., Resendiz Ortega, S. Strong support systems foster positive self-image in patients with scoliosis. *Discov Ment Health* 5, 54 (2025). <https://doi.org/10.1007/s44192-025-00180-y>
- <sup>11</sup> Chizaram, N., Gasanov, M., Goncharuk, Y., Rodkin, S., Rodkin, V., Skarzhinskaia, N., & Vasilieva, I. (2026). Idiopathic Scoliosis as a Conversion Reaction to Stress with the Neural Effect of a “Distorting Mirror”. *Life*, 16(2), 270. <https://doi.org/10.3390/life16020270>
- <sup>12</sup> Lau, K. K. L., Kwan, K. Y. H., Cheung, J. P. Y., Law, K. K. P., & Cheung, K. M. C. (2023). Impact of mental health components on the development of back pain in young adults with adolescent idiopathic scoliosis. *European spine journal*, 32(11), 3970–3978. <https://doi.org/10.1007/s00586-023-07908-w>
- <sup>13</sup> Wang, D., Tsang, R., Li, Q., Chen, F., Vasanthi, R. K., Purushothaman, V. K., & Wang, S. (2025). Sensory integration dysfunction in adolescent idiopathic scoliosis: Insights from a clinical balance assessment using the m-CTSIB. *Journal of clinical neuroscience: official journal of the Neurosurgical Society of Australasia*, 136, 111267. <https://doi.org/10.1016/j.jocn.2025.111267>
- <sup>14</sup> Batın, S., Uçar, İ., Payas, A., Bal, E., Ekinçi, Y., Kurtoğlu, E., Arık, M., Seber, T., Yılmaz, H., Kahraman, N., & Unur, E. (2023). Can Adolescent Idiopathic Scoliosis be Associated with Visual Impairment?. *Journal of clinical practice and research*, 45(4), 385–391. <https://doi.org/10.14744/cpr.2023.08108>

## Advice to my teenage self with progressing scoliosis

- **Know You Have a Choice:** You are going through a lot right now. You don't have to be so brave and strong, but somehow, you are. You are struggling inside while achieving a lot. The most important thing to know is this: YOU HAVE A CHOICE. You get to choose your treatment path and your life right now. It may not feel like it. It may feel like you have to do a million things at once. You will have to fight tooth and nail to choose yourself; this is the work of self-advocacy. Choosing yourself can be very counter-cultural. Perhaps everyone else in your position may have accepted the status quo and no one has asked for a choice before. IT'S OKAY TO WANT SOMETHING DIFFERENT FOR YOURSELF. Choosing to care for yourself and put yourself first makes a big difference when dealing with a chronic medical condition.
- **Engage in Creativity:** Spend your time in less restrictive environments and in places you can explore your creativity. With scoliosis, your treatment already places restrictions on you, but there are many gems to be discovered in your inner world. Personally, I lost my sense of self going uniform to uniform and institution to institution while having an already restrictive condition, and it's taking lots of time to find it again. Creativity and self-expression through music and art is what has been saving me.
- **Set Space in Your Schedule:** However you find space in your life, take it, and multiply it by 10. Ask for more time and more space. Space is being physically taken from you with scoliosis, both within and outside of your body. You must take a mile when those in power give you an inch. You really don't have to do it all. Just because you can try to, doesn't mean you have to, and doesn't mean you'll be successful at it. *You ARE allowed to choose what you strive at!* Imagine what you could create by investing in what truly motivates you. Since your time is at a premium when you have a chronic medical condition, set boundaries to protect what is sacred for you. The feeling of relief in your brace when you get a break from your schedule is something to listen to. There's something beautiful about coming home from school and being able to rest rather than attending hours of resume-building activities. Allow your body time to rest.
- **Support your future independence:** If working for income is an option for you as a teenager, and it feels like a good use of your time, do it! It can be extremely valuable to add to the feeling of choice. At 25, I still feel like a teenager, but now I KNOW I have choices in my life because I made it so.
- **Take Breaks:** Capitalism wants you to continue producing. Dare to slow down. Know you are allowed to make choices that support your inner self. Sometimes, the costs of a really vibrant and high-achieving external world outweigh the

benefits. The finish line will keep moving. Choose yourself. Society says to be dependent as long as you can and to build your resume at the cost of current satisfaction. Others may be placing unrealized dreams upon you to fulfill, whether they realize it or not. Self-advocacy is how you survive within a system that wants you to be constantly overworked.

- **Motivation:** If something's not intrinsically valuable for you outside of external accolades, your motivation is going to run out. I personally lost something by not trusting myself and not allowing myself to make decisions based on my inner world when I was a teenager. I'd rather be really good at one or a few things I discovered through internal motivation over my life that I didn't know I would be good at, than to try at 10 things someone else wanted me to do and be okay at all of them. Listen to your internal world; it may be SCREAMING at you to slow down or to pursue a different goal.
- **Disability:** You are ALLOWED to identify as disabled if you choose, and to seek accommodations that help you. You do have a disabling condition, though it is frustrating to not have a clear reason why. You feel different inside because you ARE different, and you need different things than a fully able-bodied person. You may be internalizing ideas about what you "should" be able to do, since scoliosis is at times invisible. You get to decide what accommodations you need.
- **Bracing:** You are ALLOWED to say yes or no to bracing. Looking back, I wish I had simply said "no" to the brace. It delayed a surgery that eventually felt inevitable and had a negative impact on my physical development, mental health, and body image. There were "no other options available" at the time, and I know my family and doctors did their best with the information they had. Still, others have found success with it. It's YOUR choice.
- **Research alternative treatments:** You are ALLOWED to ask what treatment alternatives exist. In 2026, research is being done on scoliosis treatment alternatives to "standard" bracing and surgery, including physical therapy, Schroth therapy, sensorimotor integration therapy, family-centered therapy, support groups, and concurrent mental health therapy. I wish I had known I could choose something else for myself and looked into these treatments.
- **Think Critically:** Food for thought: If a surgery for a specific condition is thought to be low-risk and is continuously recommended, yet the medical field has not agreed on what causes the condition it's treating nor begun to address the correlated mental health issues in the population with the condition, and it doesn't work for everyone, why is the surgery continuing to be the go-to treatment? Could someone else have a financial incentive for you to have the surgery? Remember that you are in a very vulnerable position as a minor who has

a condition with no known cause, yet receiving a “standard” way to treat the condition, and whose caretakers are grasping at straws for certainty. Will what works to treat a condition for one person really benefit everyone with the condition, if the condition’s cause is not identified or treated in the process? Your knowledge and your choice is your power. Sometimes, people or institutions really don’t have your best interests in mind. Doctors are humans and sometimes don’t know what they’re doing in prescribing “standard” treatment. Allow yourself to consider your position.

- **Surgery:** You are also ALLOWED to say yes or no to surgery. While I would still recommend surgery if your scoliosis were to progress above 50 degrees, based on current research available, you DO have a choice. Whatever you do, continue to check in with your doctors and stay informed on current research.
- **Give treatments focused time:** Whatever treatment you choose, I encourage giving it a real chance by taking a month-or-so break from everything in your life, before surgery forces you to. By opting to give newer treatments a real chance for a few weeks and taking a break from your schedule, you’re not giving up excelling at something, you are just shifting your focus. If you really miss what you were doing, you can ALWAYS go back to it. I often wonder if alternative treatments could have made more progress than bracing for me and perhaps prevented surgery altogether. If progressing far enough, scoliosis is a potentially life-threatening condition, so it is believed, and may crush your organs. With how early your scoliosis has been identified, pursuing treatment that’s focused on your and your family’s overall wellbeing and gives you skills to carry throughout your life and can have the greatest impact on your future. Yes, these therapies take time out of your schedule. Your family may need help understanding, but treatment progress can be easy to measure and exciting, as you could see your curve numbers go down and celebrate that progress. IT’S OKAY TO PUT YOUR LIFE ON HOLD FOR A LIFE-TRANSFORMING TREATMENT.
- **Find Community:** You are not alone. Scoliosis is not a condition that requires isolation, and you are not the only one with it. You are allowed to find community online or in-person with people also dealing with scoliosis. You are allowed to ask others about their experiences with treatment modalities. Finding others going through the same thing can be validating and support your sense of agency.

As I allude to in these poems, I lived most of my life at the cost of my internal world. Finally giving myself permission to center myself has had a healing impact on me, and I want to share my story. I know this work will not appeal to everyone, and it doesn’t have to; I just want one person to be positively impacted by this or have their mindset altered. There are a lot of hard truths here that I have known inside for a long time. If I need to

scale them back in the future, I will, but from my experience, I know them to be true and maintain them until proven otherwise. Truths beg to be spoken, and I am happy to debate any of these ideas within a space of curiosity and compassion.

Live your truth,  
Sophia

## Scoliosis-Specific Resources

### Resources & Narratives for Pediatric Scoliosis Patients & Caregivers

- FAQs about treating scoliosis: <https://treatingscoliosis.com/scoliosis-faq/>
- Information about Scoliosis: <https://www.scoliosisandspineonlinelearning.com/about-scoliosis>
- Curvy Girls Scoliosis: U.S.-based scoliosis support-group organization <https://www.curvygirlsscoliosis.com/groups>
- Patient and Family Resources | National Scoliosis Center: <https://nationalscoliosiscenter.com/resources/>
- Glossary of Terms - National Scoliosis Foundation: <https://www.scoliosis.org/information/glossary-of-terms/>
- Higgy Bears: Scoliosis-themed stuffed bears to normalize the hospital experience and offering scoliosis-centered kids' summer camps: <https://higgybears.com/>
- Stories and experiences from former adolescents with scoliosis: Scolios-us Blog: <https://www.bracingforscoliosus.org/blog/>

### Online Communities for Adults/Adolescents with Scoliosis

- The Bionic Project - <https://www.thebionicproject.com> → Instagram: @bionic.project
- Tangled in the Curves - <https://www.tangledinthecurves.com> → Instagram: @thescoliosisbook
- Scoliosis Reddit: Open forum for scoliosis-related questions and experiences <https://www.reddit.com/r/scoliosis/>

### Pain/Strengthening Resources:

- Virtual Scoliosis Strength Training | Strength & Spine - <https://strengthandspine.com/>
- Scoliosis Exercises - Schroth Method - <https://schrothmethod.com/scoliosis-exercises/>
- On-Demand Pilates for Spinal Fusion and Chronic Pain - Havenwell Pilates - <https://havenwellpilates.com/on-demand-pilates-spinal-fusion-chronic-pain/> → Instagram @havenwellpilates
- PT Equipment - <https://happysew.com/?aff=3>

### Advocacy:

- Share these poems with someone you know who has scoliosis!
- If you're a provider, refer your scoliosis patients to mental health resources at your facility as part of treatment.
  - [Scoliosis & Youth Mental Health Program:](https://www.nyp.org/ochspine/scoliosis-and-youth-mental-health)  
<https://www.nyp.org/ochspine/scoliosis-and-youth-mental-health>

- Know there is more going on behind the curve → <https://www.facebook.com/postura.cebcenter/posts/scoliosis-isnt-just-a-curveits-chronic-pain-endless-appointments-and-battles-no-/1286605620140896/>
- Support legislation for people with disabilities. Even if you don't identify as disabled, "a rising tide floats all boats".
- Scoliosis and Emotional Health — MyBackHub - <https://www.mybackhub.com/blog/scoliosis-and-emotional-health>
- June is Scoliosis Awareness Month! Set a reminder to share a scoliosis-related post to increase awareness.

### **Personal physical recommendations for scoliosis pain:**

- A plug-in **heating pad** is helpful → Often the back muscles feel frozen with stiffness, heating them can help to melt the tension.
- A **shower chair** can help when standing in the shower becomes exhausting.
- **Physical therapy & posture adaptations:** With my physical therapist, I learned valuable postural adaptations specific to my scoliosis – adjusted positions for standing and sitting to my curve. For example, I stand with my left foot slightly ahead of my right, and when seated, only cross my left leg over the right. There are things I don't do that I used to do, like put up my left leg while driving. There's a sensory element to some movements you're used to, and exercises can help meet sensory needs proactively. Each posture will vary for your curve and please consult someone knowledgeable about your curve.
- **Alexander Technique** - a very valuable approach to postural awareness that emphasizes mindful lengthening and expanding. I recommend the book Body Learning by Michael Gelb and videos on AT. A thesis on scoliosis & Alexander technique:
  - Integrating Alexander Technique into Treatment of Adolescent Idiopathic Scoliosis to Improve Patient Quality of Life  
[https://scholarship.claremont.edu/cgi/viewcontent.cgi?params=/context/scripps\\_theses/article/2461/&path\\_info=Integrating\\_Alexander\\_Technique\\_into\\_Treatment\\_of\\_Adolescent\\_Idiopathic\\_Scoliosis\\_to\\_Improve\\_Patient\\_Quality\\_of\\_Life\\_Nishioka\\_Spring\\_2019.pdf](https://scholarship.claremont.edu/cgi/viewcontent.cgi?params=/context/scripps_theses/article/2461/&path_info=Integrating_Alexander_Technique_into_Treatment_of_Adolescent_Idiopathic_Scoliosis_to_Improve_Patient_Quality_of_Life_Nishioka_Spring_2019.pdf)
- **Pillows while driving** - I use a neck pillow, a 1-inch cushion on the seat as a buffer between the car seat and my fusion, and a pillow on my lower back.
- **Sensory tools:** Therabands and having a bar you can safely grab and hang on to stretch does a lot for my sensory regulation.
- **Adaptations:** Chairs with backs! It often hurts to sit in a backless chair for a long time. When going out, I often bring a chunky sweater with me to sit on like a cushion for hard wooden or metal chairs to add some give between wood and my metal spine. I also tend to lay on my back to do computer work—sometimes your back just needs you to lay down (I am right now!)

### **Scoliosis Research/Education:**

- International Society on Scoliosis Orthopaedic and Rehabilitation Treatment - <https://sosort.org/>
- Scoliosis Research Society - <https://www.srs.org/Research/SRS-Research-Agenda>
- [SpineWeek 2027](https://spineweek.org/) Congress - <https://spineweek.org/>
- Educational videos on scoliosis through multidimensional perspectives: <https://www.youtube.com/@SettingScoliosisStraight>
- Additional Studies & Resources: <https://pediatricscoliosissurgery.com/educational-resources/mental-health-program/useful-links-mental-health/>

### **Creative Arts & Scoliosis:**

- Baker, C., Morris, N., Tsirikos, A., Fotakopoulou, O., & Parrott, F. (2024). Adolescent idiopathic scoliosis: interdisciplinary creative art practice and nature connections. *Medical humanities*, 50(1), 41–51. <https://doi.org/10.1136/medhum-2023-012796>
- Ferguson, L. An artist's inquiry into scoliosis: an adult case report. *Scoliosis* 2 (Suppl 1), P4 (2007). <https://doi.org/10.1186/1748-7161-2-S1-P4>
  - Drawing: <https://www.lauraferguson.net/visible-skeleton>
- Nelson, K., Adamek, M., & Kleiber, C. (2017). Relaxation Training and Postoperative Music Therapy for Adolescents Undergoing Spinal Fusion Surgery. *Pain management nursing*, 18(1), 16–23. <https://doi.org/10.1016/j.pmn.2016.10.005>
- Charette, S., Fiola, J. L., Charest, M. C., Villeneuve, E., Thérroux, J., Joncas, J., Parent, S., & Le May, S. (2015). Guided Imagery for Adolescent Post-spinal Fusion Pain Management: A Pilot Study. *Pain management nursing : official journal of the American Society of Pain Management Nurses*, 16(3), 211–220. <https://doi.org/10.1016/j.pmn.2014.06.004>
- Spine paintings by Nandini Kotawala: <https://nandinikotawala.com/?srsId=AfmBOoqUFt9Dj81IsEGLJXfRnixBildPqDT1MZyPxmoWOvOzLKuSeALe>
- “A curved reality” art exhibition <https://www.brown.edu/news/2024-07-30/scoliosis-art>
- Photography: “A journey through scoliosis” by Saghi Ehteshamzadeh <https://www.saghi.ca/ajourneythroughscoliosis/>
- Family of artists with scoliosis: <https://www.scoliosiswarriorart.com/threegenerations>
- Photography: “SPINES: The art of scoliosis” by Sydnee Lubar <https://www.bracingforscoliosus.org/s-p-i-n-e-s-the-art-of-scoliosis/>

- Mixed media interpretation of surgery:  
<https://spinal-deformity-surgeon.com/an-artistic-interpretation-of-the-scoliosis-experience/>
- Sculptor with scoliosis Matt Schiermeier  
<https://www.ortho.wustl.edu/content/Whats-New/2720/the-art-of-the-spine-.asp>
- “Flare Up” art exhibit on chronic illness  
<https://www.artforum.com/events/flare-up-goldsmiths-cca-london-1234756795>
- Medical/Humanities Stories: <https://pulsevoices.org/>

### **Empowerment:**

- Kyra Condie, Olympian Climber with Spinal Fusion:  
<https://www.olympics.com/en/news/kyra-condie-exclusive-resilience-surgery-bullying-future-olympics>
- Katy the Owl Lady: Yellowstone Park Ranger with scoliosis:  
<https://www.spokesman.com/stories/2026/aug/14/she-gives-a-hoot-yellowstones-katy-the-owl-lady-up/>
- Shailene Woodley, actress on bracing:  
<https://www.sbs.com.au/news/article/woodley-wore-back-brace-as-a-teen/8xa8odqrr>
- Usain Bolt and Scoliosis:  
[https://www.espn.com/olympics/story/\\_/id/7294360/olympics-usain-bolt-being-fastest-man-world-espn-magazine](https://www.espn.com/olympics/story/_/id/7294360/olympics-usain-bolt-being-fastest-man-world-espn-magazine)

### **General Mental Health Resources:**

- <https://www.samhsa.gov/find-support>
- If in crisis, text HOME to 741741

### **Facts about my experience:**

- I was treated for and diagnosed with adolescent idiopathic scoliosis from 2012–2018.
- At 11 years + 4 months: after a school scoliosis check, an x-ray was done, showing a right curve measuring 32°
- At 11 years + 6 months, I had a consult with my future surgeon: *“The only option we have to offer in hopes of preventing her curvature from progression would be a custom-made TLSO brace. We explained that a brace is not 100 percent guaranteed to keep the curve from progressing, but again, it is our only treatment option at this time.”* - from my medical record
- At 11 years + 9 months: I began wearing the brace 20 hours/day for 2 years.
- At 13 years + 9 months: apparent skeletal maturity and bone age analysis indicated that I was at Risser 4-5, and bracing prescription was lifted.

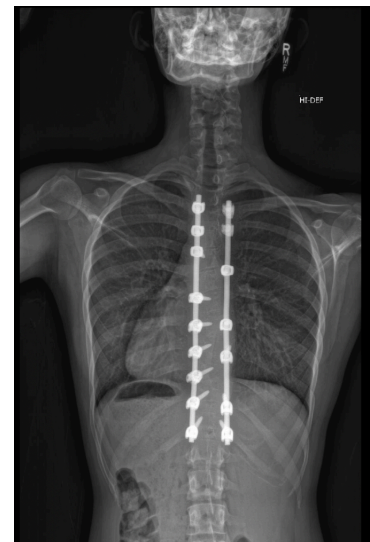
- I had 2 follow up appointments, December 2014 and March 2015, where my curve was developing but still Risser 4-5. I was told the curve had some risk of progressing, but still, just to come back in a year.
- The curve progressed significantly from 2015 grade to 2016.
- In May 2016 they found a 50° curve, scheduled surgery for August 2016.
- At 15 years 10 months: Had the surgery on August 17, 2016, one complication of a pinched nerve resulting in numbness in my right thigh, (I occasionally feel tingling there to this day) and a lung collapsed during the surgery but recovered.
- Around 5 years after fusion, I began having recurring pain in my back shoulderblade, radiating down my left arm.
- I started physical therapy for the pain in January 2024.
- In July 2025, I saw a rheumatologist when I wanted clarification on what caused the new shoulder pain if not my scoliosis and investigate any rheumatological factors in my scoliosis. They noted benign hypermobility but no further diagnoses were given.



2016 - 50° curve



8.2016 supine bend



2018, fused T3-T12

*Thank you for reading! Please share this with someone who might benefit from it, and consider buying me a coffee to support future work →*

<https://www.paypal.biz/bandanaphilosophy>

## References

### Additional research on scoliosis' psychological/psychosocial correlations:

1. Mitsiaki, I., Thirios, A., Panagouli, E., Bacopoulou, F., Pasparakis, D., Psaltopoulou, T., Sergeantanis, T. N., & Tsitsika, A. (2022). Adolescent Idiopathic Scoliosis and Mental Health Disorders: A Narrative Review of the Literature. *Children (Basel, Switzerland)*, 9(5), 597. <https://doi.org/10.3390/children9050597>
2. Al Hajaj, S. W., Al Hajaj, D., Singh, P., Bharadwaj, S., Nair, V., & Srinivasan, S. H. (2025). "The silent strain: Exploring self-image and mental health in braced adolescents with scoliosis": a scoping review. *Journal of clinical orthopaedics and trauma*, 70, 103217. <https://doi.org/10.1016/j.jcot.2025.103217>
3. Abu-Zahra, M. S., Karakash, W. J., Kistler, N., McCavitt, D., Avetisian, H., Rusu, D., Lindgren, A., Yoshida, B., Wang, J. C., Alluri, R. K., Safaee, M. M., & Hah, R. J. (2026). Mental health disorders in adolescent idiopathic scoliosis surgery: prevalence, postoperative outcomes, and opioid use. *The spine journal: official journal of the North American Spine Society*, 26(3), 594–601. <https://doi.org/10.1016/j.spinee.2025.10.006>
4. Bertuccelli, M., Rubega, M., Cantele, F., Favero, C., Ermolao, A., Formaggio, E., & Masiero, S. (2023). Body-Related Attentional Bias in Adolescents Affected by Idiopathic Scoliosis. *European journal of investigation in health, psychology and education*, 13(9), 1909–1919. <https://doi.org/10.3390/ejihpe13090138>
5. Talić, G., Ostojić, L., Bursać, S. N., Nožica-Radulović, T., & Stevanović-Papić, Đ. (2016). Idiopathic Scoliosis from Psychopathological and Mind-Body Medicine Perspectives. *Psychiatria Danubina*, 28(4), 357–362. <https://pubmed.ncbi.nlm.nih.gov/27855426/>
6. Huang, H., Zhang, G., Hu, X., Zhang, Z., Xie, H., & Wang, C. (2026). Multidimensional psychosocial characteristics of adolescents with idiopathic scoliosis in China: a controlled cross-sectional study. *BMC psychology*, 14(1), 748. <https://doi.org/10.1186/s40359-026-04470-0>
7. Bertuccelli, M., Cantele, F. & Masiero, S. Body Image and Body Schema in Adolescents with Idiopathic Scoliosis: A Scoping Review. *Adolescent Res Rev* 8, 97–115 (2023). <https://doi.org/10.1007/s40894-022-00187-4>

## Theories/data surrounding potential etiologies of scoliosis:

*I can only comment on my experience and on current, publicly-available research. I don't rule out any potential causes for scoliosis, a condition with an unknown cause. I note that regarding scoliosis' etiology, there are more "letters to the editor," internal arguments amongst scientists, and controversies in the literature than I've seen on any other medical topic.*

8. Becker, L., Li, Z., Wang, Z., Pumberger, M., & Schömig, F. (2023). Adolescent idiopathic scoliosis is associated with muscle area asymmetries in the lumbar spine. *European spine journal*, 32(11), 3979–3986.  
<https://doi.org/10.1007/s00586-023-07921-z>
9. Park, Y., Ko, J.Y., Jang, J.Y. *et al.* Asymmetrical activation and asymmetrical weakness as two different mechanisms of adolescent idiopathic scoliosis. *Sci Rep* 11, 17582 (2021). <https://doi.org/10.1038/s41598-021-96882-8>
10. Duncombe, P., Dick, T., Ng, P. T. T., Izatt, M. T., Labrom, R. D., & Tucker, K. (2025). Beyond the Curve: The Muscle-Specific Asymmetries of Adolescent Idiopathic Scoliosis. *JOR spine*, 8(4), e70129.  
<https://doi.org/10.1002/jsp2.70129>
11. Wong, A. Y. L., Samartzis, D., Cheung, P. W. H., & Cheung, J. P. Y. (2019). How Common Is Back Pain and What Biopsychosocial Factors Are Associated With Back Pain in Patients With Adolescent Idiopathic Scoliosis?. *Clinical orthopaedics and related research*, 477(4), 676–686.  
<https://doi.org/10.1097/CORR.000000000000569>
12. Independent narrative: *The Root Cause of Idiopathic Scoliosis*  
[https://medium.com/@michaelrosen\\_94192/the-root-cause-of-scoliosis-5c461002b634](https://medium.com/@michaelrosen_94192/the-root-cause-of-scoliosis-5c461002b634)
13. Independent narrative: *Idiopathic Scoliosis: A Psychosomatic Cause?*  
<https://deeperlayers.com/idiopathic-scoliosis-treatment-neuromuscular-massage-therapy/>

## Research on effectiveness of scoliosis treatments:

14. Kastrinis, A., Strimpakos, N., Koumantakis, G. A., Tzatzaliaris, D., Oikonomaki, M., & Dimitriadis, Z. (2026). Evaluating the Effect of the Schroth Method on Sensorimotor Control in Adolescents with Idiopathic Scoliosis: A Controlled Clinical Trial. *Journal of functional morphology and kinesiology*, 11(1), 127.  
<https://doi.org/10.3390/jfmk11010127>

15. Bali A, Mehta N, Garg B. (2026) Management options in early-onset scoliosis: A summary of current evidence. *Journal of Clinical Orthopaedics & Trauma*, 77 <https://doi.org/10.1016/j.jcot.2026.103437>
16. Royse, L. A., Saparova, D., Boeyer, M. E., & Hoernschemeyer, D. G. (2025). How Do Patients Perceive Success and Satisfaction After Vertebral Body Tethering and Fusion for Adolescent Idiopathic Scoliosis? A Qualitative Study. *Clinical orthopaedics and related research*, 483(6), 1124–1138. <https://doi.org/10.1097/CORR.0000000000003373>

#### **Additional research on scoliosis commorbidities:**

17. De Salvatore, S., Di Cosimo, G., Inverso, M., Brigato, P., Oggiano, L., Sessa, S., Palombi, D., Palmieri, F., Guida, S., Contursi, A., Fumo, C., & Costici, P. F. (2026). Preoperative Psychological Factors and Early Postoperative Pain After Posterior Spinal Fusion for Scoliosis: A Retrospective Preliminary Study. *Medicina (Kaunas, Lithuania)*, 62(4), 698. <https://doi.org/10.3390/medicina62040698>
18. Yan, L. I., Wong, A. Y., Cheung, J. P., Zhu, B., Lee, K. C., Liang, S. R., Ll, J. Y., Ho, B. Y. W., & Bressington, D. (2023). Psychosocial interventions for teenagers with adolescent idiopathic scoliosis: A systematic literature review. *Journal of pediatric nursing*, 73, e586–e593. <https://doi.org/10.1016/j.pedn.2023.10.037>
19. Alimam, D., Alhafdhi, N., Alrashed Alhumaid, L., Alamrani, S. A., & Bin Shebreen, A. (2026). Quality of Life in Adolescents with Idiopathic Scoliosis: A Longitudinal Study Exploring the Impact of Psychological Distress, Joint Hypermobility, Body Mass Index, and Physical Activity. *Journal of clinical medicine*, 15(14), 5422. <https://doi.org/10.3390/jcm15145422>

#### **Caregiver-specific research:**

20. Zaina, F., Ferrario, I., Bakhsh, H. R., Donzelli, S., & Negrini, S. (2025). SCaRES - scoliosis caregiver response and emotional scale: a Rasch-validated questionnaire to measure the psychological impact of children's scoliosis on their parents. *European spine journal*, 34(11), 5224–5231. <https://doi.org/10.1007/s00586-025-08983-x>

#### **Pain management research:**

21. Karagianni, D.M., Katsiari, C.G., Bonotis, K., & Sakkas, L. (2026). Psychological Aspects of Rheumatic Diseases: Psychorheumatology in Clinical Practice. *Rheumatol Ther* 13, 885–898. <https://doi.org/10.1007/s40744-026-00868-9>

22. Pelky, M. (2026). Interdisciplinary collaboration improves outcomes: children undergoing posterior spinal fusion surgery. *Pain management nursing: official journal of the American Society of Pain Management Nurses*, 27(2), e225.  
<https://doi.org/10.1016/j.pmn.2026.01.018>
23. Aboushaar, N., & Serrano, N. (2024). The mutually reinforcing dynamics between pain and stress: mechanisms, impacts and management strategies. *Frontiers in pain research (Lausanne, Switzerland)*, 5, 1445280.  
<https://doi.org/10.3389/fpain.2024.1445280>