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Back-Shu Points and Heat on the Back: A Textual Genealogy and Modern Measurement Evidence Map

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Abstract

Heat on the back (beire) and Back-Shu points (beishu) both invoke the back, and classical medicine often relates heat to viscera, making a direct connection tempting. Separated by textual genealogy, however, the relationship is limited. The Donguibogam entry quotes the Yixue Rumen to place back heat in a lung and upper-burner explanatory network but mentions neither an acupoint nor needling. The Lingshu chapter locates visceral Back-Shu points by vertebral level and palpatory response but does not discuss back heat. The Suwen places ten points beside the five visceral Shu points within a needling system for heat illness, not a study of spontaneous localized heat on the back. A 2022 systematic review of ten acupoint-temperature studies could not establish disease specificity because of heterogeneity and methodological limitations. A 2024 thermographic study of 50 people with lumbar-disc-herniation low-back pain and 45 healthy controls reported asymmetry at several lumbar Back-Shu points, but did not recruit people for back heat. A study of 48 healthy adults found site-to-site differences in tissue properties and pressure sensitivity, showing that anatomy alone can create apparent point differences. Current evidence therefore supports a testable historical and measurement hypothesis—not the conclusion that Back-Shu points cause, diagnose, or treat heat on the back.

Keywords: Back-Shu points · heat on the back · Donguibogam · Huangdi Neijing · thermography · acupoint specificity

The same back does not imply the same relationship

Here, heat on the back denotes either a person's felt warmth or burning on the back or the classical expression 背熱. Back-Shu points are a series of organ-associated locations beside the spine. One is a symptom or textual term; the other is a surface-location system. At least four relationships are possible: direct co-occurrence in a source, spatial overlap, physiological plausibility, and demonstrated diagnostic or therapeutic utility. The first condition of verification is not to merge these layers ^[1, 2, 3].

We cross-searched 背熱, 背俞, 五臟俞, and 肺俞 across a HanScope snapshot dated 14 August 2026 containing 1,121 documents and 61,958 sections, then checked public editions of the Donguibogam, Lingshu, and Suwen. Modern searches combined back-shu, acupoint, skin temperature, thermography, pain sensitivity, and anatomy in PubMed, prioritizing full text or official abstracts. This is a purposive map of directness, measurability, and falsifiability, not a systematic efficacy review.

The Donguibogam back-heat sentence contains no acupoint

The “Back” section of the Donguibogam, published by Heo Jun in 1613, separates cold on the back from heat on the back. Under the latter appears one sentence—“背熱屬肺肺居上焦故熱應於背”—with a source marker for the Yixue Rumen. It places the region of heat within a lung and upper-burner explanatory network, but mentions none of Feishu (BL13), Back-Shu points, palpation, acupuncture, or moxibustion ^[1].

Moving from “back heat belongs to the lung” to “therefore BL13 diagnoses or treats back heat” requires premises outside this sentence: a relation between lung and back, between lung and Feishu, and between Feishu and localized heat. The classical sentence demonstrates only the historical existence of the first relation.

Source passage

Donguibogam, External Form chapter “Back,” entry “Heat on the Back”

HanScope normalized text, lines 6,374–6,378; marked as a quotation from Yixue Rumen

背熱屬肺肺居上焦故熱應於背[入門]

BRC translation. Heat on the back belongs to the lung. Because the lung resides in the upper burner, heat responds at the back.

How we read this passage. Supports only placing back heat in a lung–upper-burner explanatory network; it does not support BL13, needling, skin temperature, or a modern pulmonary diagnosis.

The Lingshu defines Back-Shu points by location and palpatory response

The Lingshu chapter “Back-Shu” places lung, heart, diaphragm, liver, spleen, and kidney Shu points at different vertebral levels. It then describes measuring the back and identifying the point where pressure produces a response within and relieves pain. Its observables are vertebral location and palpatory response—not skin temperature or spontaneous warmth ^[2].

Back-Shu is also a series extending from the upper thorax to the lumbar region, not one point. If heat is not mapped before the point grid is revealed, saying that both occur on the back creates automatic overlap across a large surface and makes the spatial hypothesis untestable. Vertebral level, distance from the midline, and laterality must be recorded first.

Source passage

Huangdi Neijing Lingshu, “Back-Shu”

Chinese Text Project public transcription, “Back-Shu”

背中大腧，在杼骨之端，肺腧在三焦之間，心腧在五焦之間，膈腧在七焦之間，肝腧在九焦之間，脾腧在十一焦之間，腎腧在十四焦之間。

BRC translation. The major Back-Shu points are placed at successive vertebral levels: lung, heart, diaphragm, liver, spleen, and kidney Shu.

How we read this passage. Supports Back-Shu as a vertebally distributed series, not specificity for back heat or temperature.

Heat and Back-Shu meet in the Suwen—but not as heat on the back

The most direct bridge appears in the Suwen chapter “Discourse on Water and Heat Points.” While describing a set of 59 points for heat illness, it states that five points beside the visceral Shu points—ten bilaterally—drain heat from the five viscera. Later commentary identifies the pairs as Pohu, Shentang, Hunmen, Yishe, and Zhishi. This text genuinely places the vicinity of visceral Back-Shu points inside a needling system for heat ^[3].

The heat here is not defined as a spontaneous localized sensation on the back. The same passage distributes heat of the head, chest, stomach, limbs, and viscera across several point groups within a treatment architecture for heat illness. Moreover, it names points beside the visceral Shu points rather than the Shu points themselves. This is important evidence of a historical relation, but not proof that back heat and Back-Shu points are identical constructs.

Source passage

Huangdi Neijing Suwen, “Discourse on Water and Heat Points”

Chinese Text Project public transcription, “Discourse on Water and Heat Points”

五藏俞傍五此十者，以寫五藏之熱也。

BRC translation. The five beside the visceral Shu points—ten bilaterally—drain heat from the five viscera.

How we read this passage. Supports a historical link between a heat-illness needling system and the vicinity of visceral Shu points; not subjective back heat, heat at the Shu points themselves, diagnostic accuracy, or treatment effect.

Modern thermal research has measured acupoints without establishing specificity

A 2022 systematic review by EunMee Yang and colleagues included ten studies of acupoint skin temperature and health status from 1,771 search results. Eight compared clinical and healthy groups; two compared within-person changes in health status. Although multiple studies reported temperature differences at selected acupoints, methodological problems and heterogeneity of conditions, points, and designs prevented a definitive conclusion that point temperature indicates pathology ^[4].

For back-heat research this yields two warnings. First, measuring only the point cannot show whether it differs from adjacent skin. Second, without prespecifying room temperature, acclimatization, camera geometry, region size, bilateral comparison, and multiplicity, small differences may be mistaken for point specificity. Felt heat must be recorded simultaneously as a separate variable.

Differences at Back-Shu sites are not yet differences in back heat

In 2024, Xiao Yuan and colleagues imaged the lumbosacral region and BL22–BL28 in 50 people with lumbar-disc-herniation low-back pain and 45 healthy controls. Lumbosacral temperature and bilateral asymmetry were greater in the patient group, and affected-side BL23 and BL25 were warmer than the unaffected side. Participants, however, were selected by pain and imaging rather than back heat; felt warmth was not measured; and the abstract cannot establish whether point effects survive comparison with non-point regions at the same level ^[5].

In 2024, Heeyoung Moon and colleagues measured tone, stiffness, and pressure sensitivity at BL13, BL15, BL18, BL20, and BL23 in 48 healthy young adults. BL23 had lower tone and stiffness and higher pressure sensitivity than other sites. The authors warned that regional anatomy may create these differences and could mislead visceral diagnosis. The study measured neither temperature nor patients, but strongly demonstrates why a difference observed “at an acupoint” is not by itself organ specificity ^[6].

Segmental neural connections are a possible explanation, not validation of back heat

A neurophysiological review explains Back-Shu effects through somato-visceral reflexes and autonomic modulation, while a 2022 review of anatomy and needling at BL18, BL20, and BL22 proposed spinal, sympathetic, and diaphragmatic pathways. Yet its 115 articles mainly reported insertion depth and angle; the authors acknowledged that studies of effective stimulation and mechanism were scarce and that included-study quality was not high ^[7,8].

A 2024 network analysis of point selection in 421 clinical studies found Back-Shu points more often used for Zang than Fu organs. This shows that traditional selection patterns persist in modern trials; it does not test whether those choices were correct or effective for back heat ^[9]. Frequency of use, physiological plausibility, diagnostic accuracy, and treatment effect are different evidence classes.

Current judgment and the next test

The supported relationship is limited to three points. First, classical sources historically connect back region, viscera, heat, and the vicinity of Back-Shu points through different contexts. Second, temperature, tissue properties, and tenderness at Back-Shu sites can be measured. Third, segmental anatomy and autonomic reflexes offer plausible mechanisms to test. It remains untested whether back-heat locations cluster at Back-Shu points beyond chance, whether BL13 changes specifically with episodes, whether any change exceeds adjacent skin, or whether needling improves the sensation.

In the next study, participants first draw the episode boundary and preserve their own words. Standardized Back-Shu coordinates are overlaid only afterward under blinded analysis. Simultaneous thermography compares point centers with surrounding annuli at the same vertebral level and mirrored regions, then repeats the procedure when asymptomatic. The primary questions are spatial concordance and temporal reproducibility, not treatment effect. Organ diagnosis or a needling trial should not follow unless those stages are first supported.

Needling points over the back and thorax is not a low-risk measurement that follows automatically from a research idea. Anatomical risk is real, as illustrated by a reported bilateral pneumothorax after acupuncture in a person whose pleura lay only 22 mm beneath the skin at the relevant region ^[10]. This evidence map does not recommend self-palpation, self-needling, or treatment of back heat.

Declarations

Author contributions (CRediT)	Yeonseung Choe: Conceptualization, Clinical framing, Writing – original draft, Research-system design · Baekrokdam Research Commons (BRC): Investigation, Source criticism, Data curation, Evidence verification
Data availability	A public ledger links search scope, source passages, allowable claims, and prohibited inferences. It provides hashes, document IDs, and line locators rather than redistributing the HanScope source snapshot.
Funding	No external funding.
Competing interests	The authors and publisher share research infrastructure with Baekrokdam Korean Medicine Clinic. This study is not evidence of treatment efficacy for back heat or Back-Shu needling.
AI use disclosure	AI tools assisted query expansion, structuring, and bilingual drafting. Classical passages were checked against local HanScope artifacts and public editions; modern studies against official PubMed records and public full text. Claim boundaries were rechecked by internal evaluation rules.
Ethics	Only public literature was used; no patient data are included. No needling study was proposed for immediate execution or performed.

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